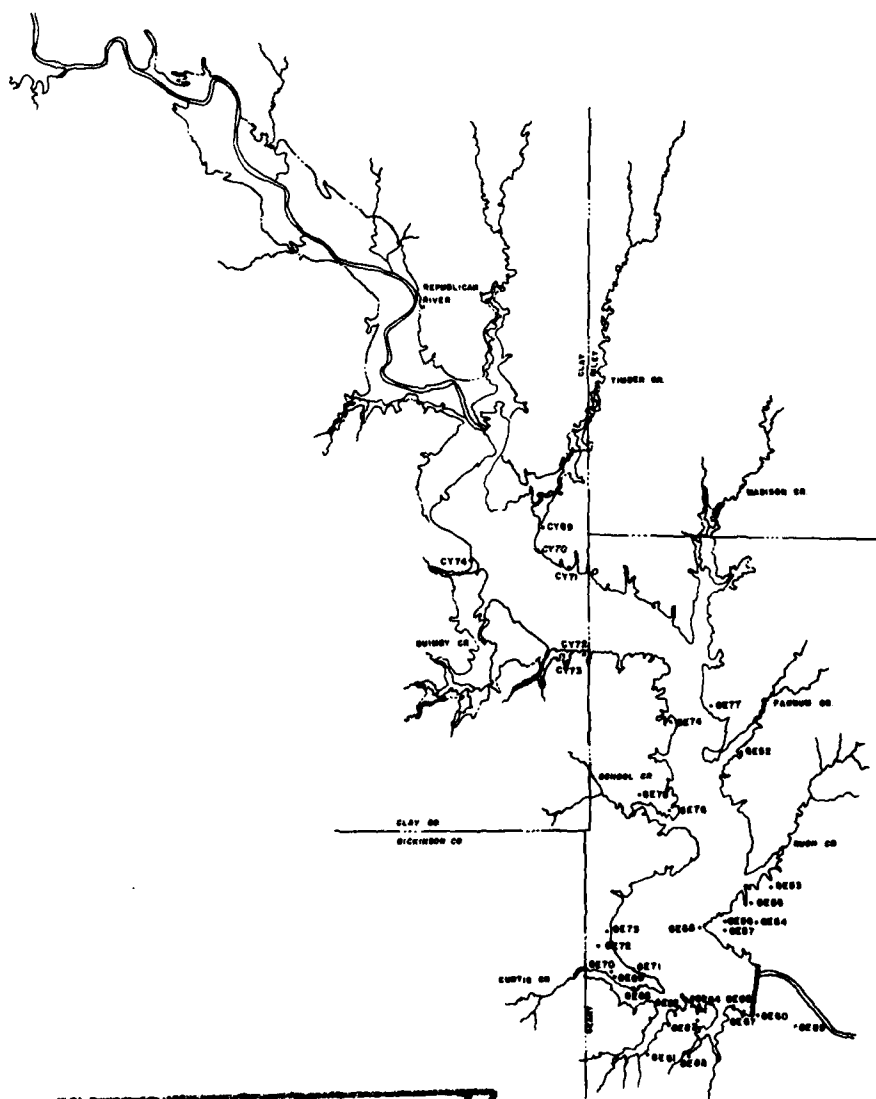




Department of Sociology,  
Anthropology and Social Work  
Kansas State University

# Sample Archaeological Survey of Public Use Areas



DTIC  
ELECTE  
NOV 14 1984  
E

**By Laura S. Schwiekhard**

**Patricia J. O'Brien**  
**Principal Investigator**

**DACW41-79-M-0911**

This document has been approved  
for public release and sale; its  
distribution is unlimited.

September 1982

84 11 01 078

PII Redacted

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. <i>AD-A147545</i>	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Milford Lake, Kansas Sample Archaeological Survey of Public Use Areas		5. TYPE OF REPORT & PERIOD COVERED  Final 1979-1981
7. AUTHOR(s) Laura S. Schwiekhard Patrica J. O'Brien		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Department of Sociology, Anthropology and Social Work Kansas State University Manhattan, Kansas		8. CONTRACT OR GRANT NUMBER(s)  DACW41-79-M-0911
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Corps of Engineers, Kansas City District 700 Federal Building, 601 E. 12th St. Kansas City, Missouri 16106		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE September 1982
		13. NUMBER OF PAGES 86
		15. SECURITY CLASS. (of this report)  Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) archeology                      Clay County survey                            history public use areas                historic archeology Republican River                central lowlands Geary County                    Northern Flint Hills		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  Milford Lake was created by building a dam across the Republican River just north of Junction City. Project lands are situated in four counties (Geary, Clay, Dickinson, Riley).  This report summarizes the results of a sample archaeological survey of the public use areas at Milford lake conducted between elevations 1146.37 and 1147.54 ft. Eighteen previously recorded prehistoric sites were known. Although only two isolated prehistoric artifacts were found during the survey, thirty-two new		

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

historic sites were located.

None of the cultural sites are eligible for nomination to the National Register of Historic Places.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

SAMPLE ARCHAEOLOGICAL SURVEY OF MILFORD LAKE

PUBLIC USE AREAS, KANSAS

by

Laura S. Schwiekhart

and

Patricia J. O'Brien

Department of Sociology, Anthropology  
and Social Work

Kansas State University

Submitted to:

U.S. Army Corps of Engineers  
Kansas City District

In Accordance With:

Purchase Order Number DACW41-79-M-0911

Final Draft

September 1982

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input checked="checked" type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	



## ABSTRACT

This survey reports the results of a sampled archaeological survey of the Public Use Areas of Milford Lake. Eighteen previously recorded prehistoric sites are known from these areas. Only two isolated prehistoric artifacts were found on the survey but thirty-two new historic sites were also located within the Public Use Areas.

Due to the age of the historic sites, being less than 25 years old, none of them are eligible for nomination to the National Register of Historic Places. Also while the prehistoric sites in the Public Use lands meet the age criteria for nomination to the National Register of Historic Places, all the most significant sites either were excavated by Mr. Floyd Schultz before World War II or recommendations for the testing of sites to determine their eligibility has not been completed by the various agencies involved.

## TABLE OF CONTENTS

Abstract . . . . .	i
Table of Contents . . . . .	ii
List of Figures . . . . .	iii
List of Tables . . . . .	iv
Introduction . . . . .	1
Scope of Work . . . . .	2
Environmental Setting . . . . .	3
Archeological Background . . . . .	6
Prehistoric Archeological Sites Previously Located . . . . .	14
Survey Methods . . . . .	18
Results of this Survey . . . . .	23
Conclusions . . . . .	25
Acknowledgements . . . . .	27
References Cited . . . . .	28
Appendix I	
Scope of Work . . . . .	32
Appendix II	
Maps of Public Use Areas of Milford Lake . . . . .	40
Appendix III	
A Historic Site Survey . . . . .	58
Introduction . . . . .	59
Historical Background . . . . .	60
Historic Archeological Sites . . . . .	66
Vita	
Laura B. Schwiekhard . . . . .	78
Patricia J. O'Brien . . . . .	80

# LIST OF FIGURES

1. Prehistoric Archaeological Sites in Milford Lake Public Use Areas.	15
2. Schematic map showing the survey testing strategy. . . . .	20
3. Timber Creek Public Use Area: Ground Cover. . . . .	42
4. Timber Creek Public Use Area: Visibility . . . . .	43
5. Farnum Creek Public Use Area: Ground Cover . . . . .	44
6. Farnum Creek Public Use Area: Visibility . . . . .	45
7. Milford-Pleasant View Public Use Area: Ground Cover . . . . .	46
8. Milford-Pleasant View Public Use Area: Visibility . . . . .	47
9. Dam Outlet Public Use Area: Ground Cover. . . . .	48
10. Dam Outlet Public Use Area: Visibility. . . . .	49
11. Rolling Hills Public Use Area: Ground Cover . . . . .	50
12. Rolling Hills Public Use Area: Visibility . . . . .	51
13. Curtis Creek Public Use Area: Ground Cover . . . . .	52
14. Curtis Creek Public Use Area: Visibility. . . . .	53
15. School Creek Public Use Area: Ground Cover. . . . .	54
16. School Creek Public Use Area: Visibility. . . . .	55
17. Clayview Public Use Area: Ground Cover . . . . .	56
18. Clayview Public Use Area: Visibility . . . . .	57
19. Projectile point and bison tooth found on survey . . . . .	24
20. Historic archaeological sites in Milford Lake Public Use Areas . .	68
21. Clay County Park: Old Wakefield . . . . .	72
22. MilFord City Park: Old Milford . . . . .	75

LIST OF TABLES

1. Public Use Area Survey . . . . .	22
-------------------------------------	----



## INTRODUCTION

Milford Lake Reservoir was created by a dam across the Republican River. It is located just north of Junction City and at maximum flood pool level (1176.2 ft. elevation) reaches just south of Clay Center. The project area is situated in four counties (Geary, Clay, Dickinson, Riley) with its major portion falling in Geary and Clay Counties. The lake's multipurpose pool elevation is 1144.4 ft.

This report summarizes the results of an archaeological survey of the Public Use Areas at Milford Lake. The survey included both the erosional area between 1144.4' and 1176.2' elevation and the upper meadow areas. The average lake level while field work was accomplished was between 1146.37' and 1147.54'. This work was completed through a cooperative agreement between the Department of Sociology, Anthropology and Social Work, Kansas State University and the U.S. Army Corps of Engineers, Kansas City District under purchase order No. DACW41-79-M-0911.

## SCOPE OF WORK

The Scope of Work required an archaeological survey of 15% of each of the Public Use Areas (a total of approximately 600 acres) within the Milford Lake Project lands. Also required was the development of a survey strategy in consultation with Corps of Engineers archaeological staff. The method of survey is described in the Survey Methods section of this report. Included in the work was the location of both previously recorded and any new prehistoric sites found along with an identification and description of the materials recovered from the survey. The U.S. Army Corps of Engineers official scope of work is in Appendix I.

### ENVIRONMENTAL SETTING

Geographical and geological environments are important factors in any archaeological study as these conditions are clues to the conditions in which one can expect for field work and to past environments of the area. The geographical and geological location of the area, a brief description of the climate, soil conditions and land use, as well as a brief description of the topography and specific rock formations at the surface in the area will be discussed for the Republican River Valley, and specifically for Milford Dam and Reservoir located in Geary and Clay Counties, Kansas.

The Republican River enters Kansas from Nebraska and is confined to Jewell, Republic, Cloud, Clay and Geary Counties. Two miles northeast of Junction City, it joins the Smoky Hill River and together form the Kansas River. Before Milford Dam was constructed, the river from the Kansas-Nebraska border to its junction was 150 miles long (Schoewe 1951: 291). Milford Dam, located at mile 8.3 on the river, is approximately four miles northwest of Junction City (US Army Corps of Engineers 1965:1). This area is located physiographically in the Central Lowlands which is part of the Interior Plains of North America. The Central Lowlands are further subdivided into the Osage Plains and finally the Flint Hills Upland (Schoewe 1959:273), and the Milford Dam and Reservoir is found within the northern Flint Hills.

The topographic features of the main Republican River Valley change from steep sidewalls downstream to more gentle valley walls near Harlan County Dam in Nebraska. The river bottom is flat and moderately wooded along streams while the valley margins are gently rolling with small

tree growth. The river basin from Harlan Dam south averages 30 miles in width. The tributaries are generally short with small drainage areas. The average width of the main stem alluvial valley is about one mile with the stream average 400 feet. The river banks average from 9-16 feet high (US Army Corps of Engineers 1965:2).

The climate which is temperate continental (Self 1978:64) combined with the silty loam and silty clay soils make this an excellent area for growth of most of the common crops of the Plains, such as milo, wheat, corn and soybeans (Parks 1978:1). Cattle grazing is also common on the naturally growing Little Bluestem and Short and Tall Gramas as well as Buffalo grasses (Schoewe 1951:67). A chart of the particular temperature and precipitation figures for this area is shown below (U.S. Dept. of Agriculture 1951:2-3).

	Geary County	Clay County
Mean annual precipitation	32 inches	27.57 inches
Percent of precipitation falling during growing season	73%	74%
Average growing season	187 days	173 days
Latest recorded killing frost	April 28	May 27
Earliest recorded killing frost	October 5	September 20
Mean annual temperature	55.5° F	53° F
Recorded maximum temperature	116° F	117° F
Recorded minimum temperature	-32° F	-35° F

Geologically the Flint Hills Upland is a north-south trending unit whose topographic limits are set by the outcrop of flintbearing Permian

strata. These Permian rocks consist of 40 formations (rock units) totaling 3,000 feet and are made up of limestones and shales, flint, gypsum, rock salt, and red colored siltstones and sandstones. Limestones containing flint beds as well as shales form the surface rock for the area (Schoewe 1949:286). The surface of this area is gently rolling with flat-topped elevations, due to the resistant nature of the silicious flint beds. However, when these chert (flint) filled limestone layers are finally broken down, weathering proceeds more rapidly until the next limestone formation containing chert is encountered. Topographically, the Flint Hills contain three levels of these gently rolling hills easily observed as flat elevations either surrounded by one of the lower elevations or occurring separately.

At Milford Lake frequent outcroppings of grey flint in limestone beds is underlain by a red and blue-grey shale layer. This chert layer by definition is the Florence limestone, a part of the Barnstone formation. It is underlain by the Blue Springs Shale, a part of the Matfield formation.

### ARCHAEOLOGICAL BACKGROUND

An excellent summary of the archaeological setting of Milford Lake has been written by O'Brien (1978) in: Milford Lake, A Preliminary Cultural Resources Management Plan. The following will, for the most part, be a summary from that work.

While the cultural resources survey of Lake Milford is incomplete, the archaeology of the area is fairly well known as a result of two basic sources of data: 1) the amateur surveys and excavations done by Mr. Floyd Schultz, a Clay Center resident who worked from the 1920's to the 1940's; and 2) excavations and surveys sponsored by various federal agencies in connection with the reservoir. The basic prehistory is outlined below with the diagnostic artifacts indicated:

#### CULTURAL-HISTORICAL SEQUENCE FOR NORTH-CENTRAL KANSAS

Paleo-Indian - 10,000-6,000 B.C.

Llano - (Clovis projectile points)

Lindenmeier - (Folsom projectile points)

Plano - (Plainview, Angostora, Hell Gap, Scotts-bluff, etc. projectile points)

Archaic - 6,000 B.C.-AD 1

Early 6000-4000 B.C. (Hardin Barbed, Agate Basin like, and sidenotched dart points)

Middle 4,000-2,000 B.C. (Nebo Hill-like Munkers Creek dart points, basal notched triangular and straight stemmed dart points;

aysemetrical polishes knives

Late 2,000 B.C.-AD 1 (contracting stemmed points)

Early Ceramic AD 1-900

Kansas City Hopewell: AD 250-500

(sand tempered, plain surfaced pottery, with cross-hatched and rocker stamping; side and corner-notched dart points)

Schultz focus AD 1(?) - 900(?) (grit-tempered plain surfaced pottery with plain or notched rims; corner notched arrow points, especially with Scallorn variety)

Valley focus AD 1-300 (grit-tempered fine threaded cord-roughened surface treated pottery with plain squarish rims whose external lip sometimes has wrapped-stick impressions placed at a 45° angle - - the ware is called Valley Cord-Roughened (Kivett 1949); corner notched arrow points, especially the Scallorn variety)

Middle Ceramic AD 900-1500

Smoky Hill: sand tempered cord-roughened pottery with plain, flaring or S-form rims, shell tempered, plain surfaced pottery with low rolled rims and incised alternating hatched triangles on the shoulder; small unnotched or side-notched triangular arrow points

Upper Republican: crushed rock or grit-tempered plain surface pottery with collared rims having incised geometric designs; small unnotched or side-notched triangular arrow points

Proto-historic AD 1500-1700

White Rock Aspect: sand tempered, simple stamped pottery with hatched parallel lines; small unnotched or side-notched triangular arrow points

Historic - AD 1500-1825

Kansa - "Oneta-like" shell tempered ceramics, side-notched arrow points, French, English and American trade goods

Pawnee - fine sand-tempered pottery with a marked collar rim incised with zig-zags, herringbone and hatched alternating triangles; unnotched triangular arrow points; French, English and American trade goods."

(O'Brien 1978:7-8)

The Paleo-Indian period is characterized by a mode of life in which the earliest Indians were hunters and gatherers but especially hunters of the now extinct megafauna of the Pleistocene: mammoth, mastodon, horse, two large buffalo (B. bison occidentalis and B. bison antiquus). The Llano Indians hunted the elephants: mammoth and mastadon while the Lindenmeier and Plano Indians hunted the buffalo, often resulting in large kills.



The Archaic Indians hunted and collected modern plants and animals of this region and followed a nomadic pattern of life by moving from base camps in a cyclic manner to various specialized camps to hunt, fish, fowl or collect specific plant foods at specific times in the year. Populations were small and highly mobile.

The Early Ceramic Indian populations continued the Archaic subsistence patterns but also some cultigens were added to their diet: corn, squash, marsh elder, which allowed for potentially a more sedentary way of life. While data on these plants are not well known in the Milford Lake area proper the larger villages of the period and the presence of burial mounds along with the use of pottery suggest these changes had an impact on the local area.

The Middle and Late Ceramic Indians were fullfledged farmers with gardens raising corn, beans, squash, and domestic sunflower. Hunts, semi-annually occurred, while local game, fish and fowl were hunted also.

The historic tribes in the area were the Pawnee who actually had a small fortified village on the Republican River and the Kansa near the Big Blue River just 20 miles to the east. These Indians too, were farmers; they were also actively involved in the historic fur trade with the Euro-Americans.

The results (notes and collections) of the work done by Mr. Floyd Schultz were given to the Museum of Anthropology, University of Kansas. There data have been analyzed over a number of years by graduate and undergraduate students for theses, dissertations and independent projects. These included the extensive survey data for sites between Clay Center and Junction City as well as excavated materials from Schultz focus burial

mounds, and Smoky Hill and Upper Republican earthlodges. Until 1966 the only published datum on the mounds was a report by Schultz and Spaulding (1948) which noted the strong Hopewellian character of one mound. The cultural mound data were analyzed by Eyman (1966) and the human osteological remains within them by Phenice (1969). These studies give us basic data on Schultz focus mortuary practices and the physical characteristics of these Indians.

Dr. Carlyle Smith's students, in the Department of Anthropology, University of Kansas, analyzed the earthlodge sites and, while not all the sites are directly in project lands, all are related to the archaeological resources within project lands.

"These studies include an analysis of the Maul (14CY21), Irvin (14RY), and Boller (14GE9) sites by Switzer (1958); the Woods (14CY30), and Kemp (14CY4) sites by Willé (1957); the Mugler (14CY1) site by Kiehl (1952); the Perreault (14CY2) site by Robinson (1951) and Davis (1958?); the Kerr (14CY6) site by an unknown author (n.d.) and the Griffiths site (14CY3) by Merrion (1954)." (O'Brien 1978:9)

A series of federally authorized surveys and excavations began in early 1960, when funding to build Milford Lake was received. The first cultural resources work was performed by the Kansas State Historical Society in 1961, sponsored by the National Park Service. This work consisted of excavations at the Woods (14CY30), Avery (14CY301) and Streeter (14CY29) sites, (Witty 1963). The National Park Service also funded a survey for sites within the reservoir in 1963, which recorded a total of 63 sites, including 47 new ones (Muller and Schock 1964).

Some testing and excavation of sites found in the earlier survey was performed by personnel of the Department of Anthropology, University of Nebraska (funded by the National Park Service) in 1964, 1965. Two especially important sites analyzed were the Smoky Hill Lodge sites: Miller (14GE21) and Rush Creek (14GE127), by Sperry (1965).

In 1967, personnel from the Kansas State Historical Society tested the Bogan site (14GE1), a fortified historic Pawnee Village overlooking the Republican River (Marshall and Witty 1967). This work was sponsored by the U.S. Army Corps of Engineers (Kansas City District). The site is now protected by a fence and grass cover.

A shoreline survey was funded by the National Park Service in 1975 (O'Brien 1976) which located 22 sites eroding out of the bank. Twenty of these sites were previously unreported. Finally, in 1977 an excavation of a Schultz focus habitation site (14GE41) was funded by the U.S. Army Corps of Engineers, Military Planning Branch, Kansas City District (Parks 1978). Thus, from all the work done at Milford, 105 sites are known to be on project lands. (O'Brien 1978:7-11). Finally a management program was funded by the Kansas City District of the Corps of Engineers in 1977 (O'Brien 1978).

While the Paleo-Indian is known to have been in this area through occasional projectile point surface finds, their way of life is best known from other areas surrounding Kansas. These people were hunters and gatherers associated with extinct fauna such as mammoth and early species of bison. The Archaic period is best known from Flint Hills

sites such as the Coffey site (14P01) at Tuttle Creek Lake (Schmits 1978) and the William Young site (14M0304) near Council Grove (Witty 1969). As hunters and gatherers, these people hunted the modern fauna of the area. The Early Ceramic period at Milford Lake is best represented by the Schultz Focus habitation site (14GE41). Due to the presence of pottery a more sedentary life is inferred, however, hunting and gathering was still an important part of their lives. This period is known by artifact assemblage and basic descriptions of the burial practices and physical type. Kansas City Hopewell and Valley focus materials have been found too.

The Middle Ceramic period is known from a number of Smoky Hill and Upper Republican earthlodges. Excavations in the area reveal a rural sedentary village lifestyle with hunting and gathering activities and semi-annual bison hunts supplementing the basic farming economy (Parks 1979:3).

The Proto-Historic period is known in the region from the Lovewell Reservoir. This period includes the beginning of the migration of the Kansa into Kansas and possibly accounts for the fortifying of Pawnee villages in the area. No sites of this period have yet been reported for the Milford area. These people presumably lived in earthlodge villages and were farmers, supplementing their diet with some hunting and gathering (Parks 1978:3).

The Historic period is represented at Milford Lake by the Pawnee Bogan Site (14GE1). It is a fortified site with three known house depressions, one of which was excavated. It was during this time that the horse

became a part of the life of these sedentary people changing it to a semi-sedentary form, with a greater emphasis on hunting than in the immediate past (Parks 1978:4).

## PREHISTORIC ARCHAEOLOGICAL SITES

## PREVIOUSLY LOCATED

Previously recorded sites in the Public Use Areas in Geary and Clay Counties are as follows from O'Brien (1976:7-21), see Figure 1.

## CLAY COUNTY

## TIMBER CREEK:

14CY22. This is the Henry Meters site located near the Timber Creek Mounds. A small side-notched projectile point suggests that it may have been a Middle Ceramic period site.

14CY31. This site, the four Hartzell mounds excavated by Schultz, seems to represent two separate cultural patterns. Two of the mounds had prehistoric Schultz focus artifacts, while the other two had historic materials with the burial remains.

14CY32. These are the Timber Creek Mounds, two Schultz focus Early Ceramic Mounds.

14CY52. This, the Woods Mound was excavated by F. Schultz and is a Schultz Focus Mound.

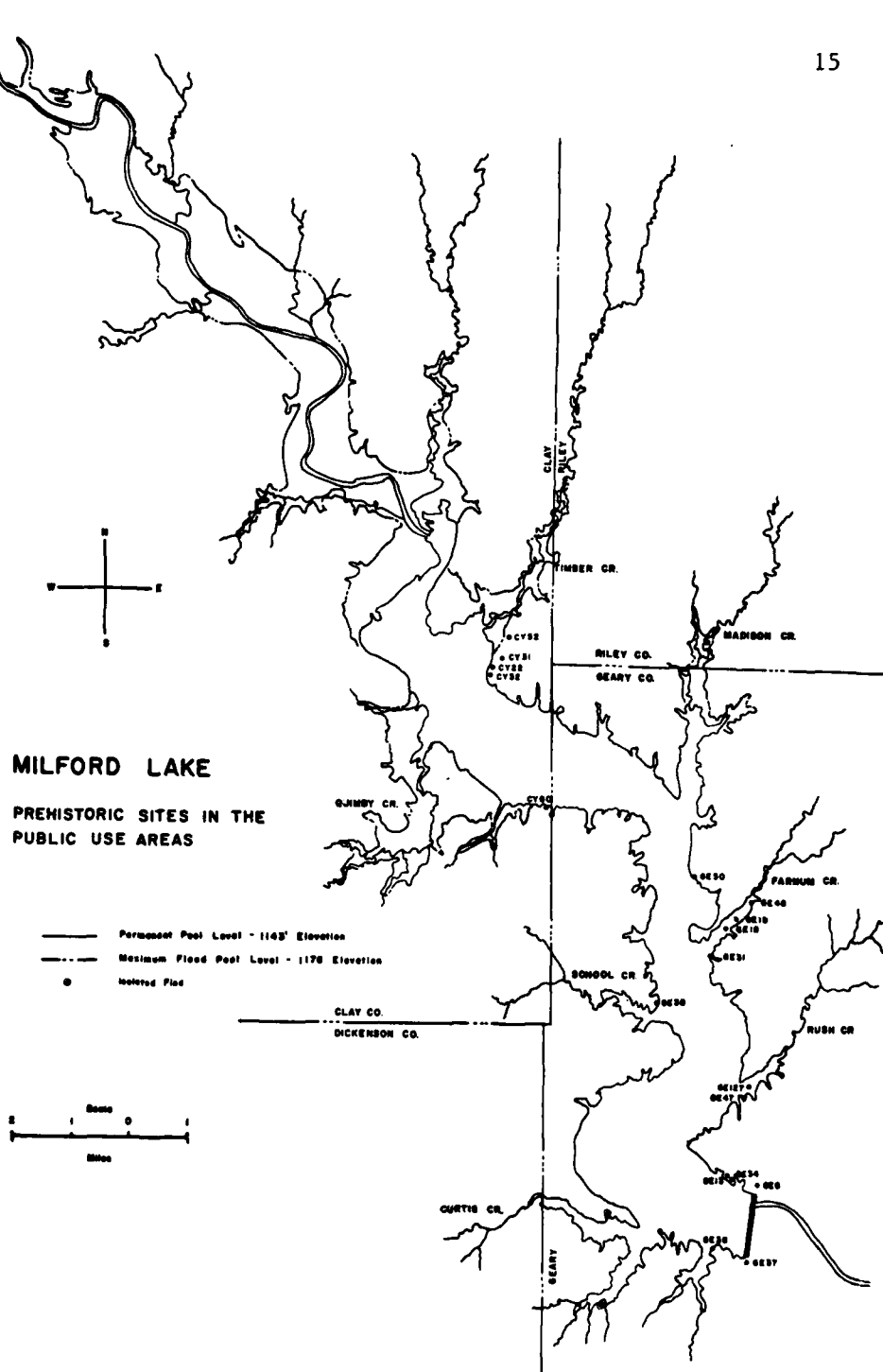
## CLAYVIEW:

14CY60. This is a small site located in a small cove in gravel and sand wash. It covers about 5 sq. meters with nondiagnostic chert debris, a projectile point tip and a biface fragment found. It probably represents the remains of an eroded habitation site.

## GEARY COUNTY

## MILFORD CITY PARK:

14GE50. This 15 x 20 meter site was eroding from the bank when first reported in 1976 and may by now have disappeared. An end scraper fragment,



a graver and retouched flakes along with bone and chert debris were found.

FARNUM CREEK:

14GE18. This is a Smoky Hill affiliated habitation site which was re-collected by University of Nebraska personnel in 1965.

14GE19. This habitation site has possible Early Ceramic affiliation.

14GE31. Muller and Schock identified this as a habitation site of unknown cultural affiliation.

14GE48. The area covered by this site is 30 x 10 meters. Several biface fragments, Smoky Hill pottery and daub were found. Testing of this site was recommended by O'Brien in 1976, but the work has not yet been done.

MILFORD PLEASANT VIEW:

14GE6. This is the James Younkin mound, a Schultz Focus Mound with Hopewellian influences. It was described in 1948 by Schultz and Spalding (1948).

14GE13. A badly potted burial mound of unknown cultural affiliation.

14GE34. This site is a rock cairn of unknown cultural affiliation.

14GE47. The site covers an area 40 x 10 meters and contains a large amount of Smoky Hill artifactual material (especially pottery). Six heavily sand tempered sherds of possible Early Ceramic affiliation were found. This site is eroding from the bank.

14GE127. This is an extensive Smoky Hill site excavated in 1964 by Sperry of the University of Nebraska. Two lodges and several pits were opened.

ROLLING HILLS:

14GE37. This is a habitation site of unknown cultural affiliation.



14GE38. This habitation site, located in the Boat Ramp #1 area, covers an area of 70 x 70 meters and is presently eroding from the bank. Both Archaic and Woodland (Scallorn projectile points) affiliated materials were found.

SCHOOL CREEK:

14GE30. This is a habitation site of unknown cultural affiliation.

### SURVEY METHODS

The scope of work required a 15% survey of the public use area lands. In order to most effectively survey those parts of the public use areas most severely impacted it was decided to focus on those lands paralleling the lake shoreline between the conservation pool elevation (1144.4 feet) and the maximum flood control pool elevation (1176.2 feet).

Some areas within the survey zone were unvegetated due to the erosion associated with lake level fluctuation and visibility was excellent while other areas were covered with grass or very dense vegetation. In the grass covered areas visibility ranged from very poor (less than 25%) to zero. To facilitate the examination of those areas without adequate visibility the following survey method was chosen. Shovel testing, and examining the pre- and post-dam constructed aerial photos and maps were done for all the Public Use Areas. Occasionally actual field work was unnecessary because of the extent of terrain damage due to former dam construction activities.

A shovel testing strategy was originally designed so that one shovel test would sample a 10 square meter area. That is, shovel tests were placed at 10 meter intervals paralleling the shoreline and paralleling each shovel test row in the zone chosen to be sampled. A grid made of 10 meter shovels test should allow one to encounter some part of a site which was larger than 10 meters square.

The tests, which are the width of the shovel (approximately 18-20 cm) square and 20-22 cm deep, were made at 10 meter intervals. Due to the actual amount of time involved in shovel testing, the latter half of this

survey was done at 20 meter intervals. In other words, one test was designated to cover 20 square meters rather than 10 square meters, and would find sites 20 meters or larger. The area covered by this method generally paralleled the shoreline and drainage areas on the higher land away from the lake. Figure 2 shows this testing while maps of each Public Use Area show the approximate location of all the tests (see Figures 3-18 in Appendix II).

An examination of aerial photos, and the maps in this study show that certain areas were not easily surveyed due to thick tree cover or have been extensively impacted by man, destroying any sites that may have been present. There are three specific areas of this nature. One is the motorcycle area at School Creek. This area appears to have been bulldozed, the ground was pushed into a large continuous ridge along the bank of the lake so that not only was the interior land changed, but the original shoreline has been completely covered also. Apparently this area also was the site of a gravel operation before the lake was built.

The second areas of obvious impact were the construction sites in the Rolling Hills area. These too show destruction of the original topography. The third areas are the public recreation areas. These sites have been under construction for roads, toilets, picnic and camping areas since project initiation. Therefore, the areas between small road circles, and near road beds, and camping and picnicing facilities have also been reworked, probably destroying any possible sites.

The scope of work stated that 15% of the public use areas (600 acres) were to be surveyed.

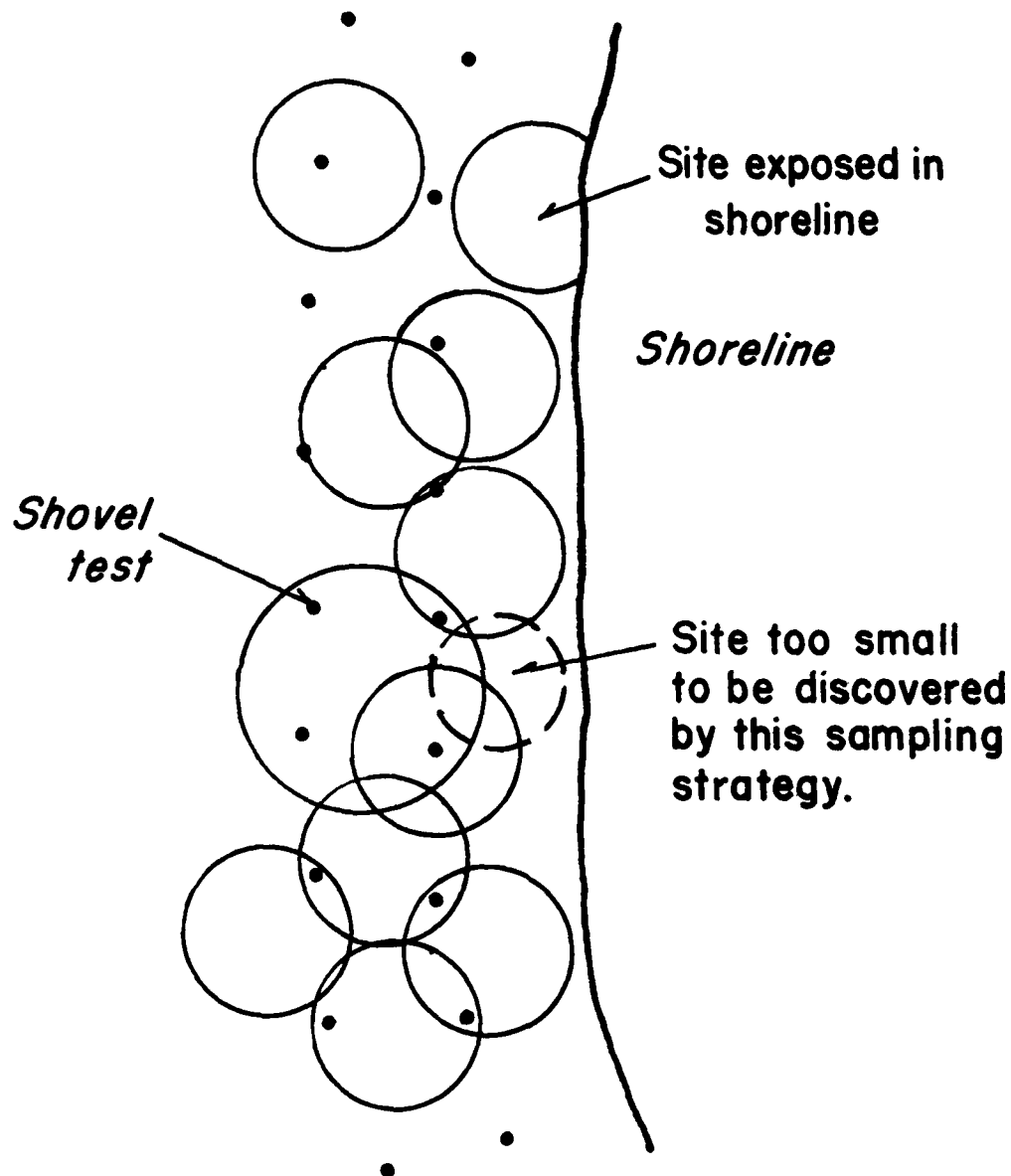


Fig. 2. Schematic map showing the survey testing strategy: sites smaller than 10 meters or the 10 meter interval test or smaller than 20 meters for the 20 meter interval test would not be discovered.

Listed in Table I is each Public Use Area, and the total number of acres in each, the actual amount 15% would be, and the acreage surveyed.

TABLE I

Place	Public Use Area Survey		Amount Surveyed	Figures
	Acreage	15%		
1. Timber Creek	380.0 acres	57.00 acres	61.90 acres	3 ground 4 visibility
2. Milford City Park	12.7 acres	1.90 acres	2.20 acres	-----
3. Farnum Creek	288.0 acres	43.20 acres	40.21 acres	5 ground 6 visibility
4. Milford-Pleasant View State Park	1084.0 acres	162.60 acres	124.49 acres	7 ground 8 visibility
5. Outlet	540.0 acres	81.00 acres	14.87 acres	9 ground 10 visibility
6. Rolling Hills	1181.0 acres	177.15 acres	165.87 acres	11 ground 12 visibility
7. Curtis Creek	440.0 acres	66.00 acres	33.05 acres	13 ground 14 visibility
8. School Creek	671.0 acres	100.65 acres	174.65 acres	15 ground 16 visibility
9. Clay View	39.0 acres	5.85 acres	6.40 acres	17 ground 18 visibility
10. Clay County Park	86.0 acres	12.90 acres	10.74 acres	-----

TOTAL AMOUNT SURVEYED: 634.38 Acres

## RESULTS OF THIS SURVEY

No new prehistoric sites were discovered in the areas surveyed.

Two isolated finds were recovered. No other cultural debris was associated with them. They are a finely serrated, Middle Ceramic projectile point (Fig.19a) discovered in the southern shore area of the Curtis Creek Public Use Area, and a bison tooth (see Fig.19b) found a short distance outside the west edge of the Rolling Hills Public Use Area.

The point, stylistically, is what is called a Fresno point (Bell 1960:44-45), and is common in the region after 1000 A.D. It is 2 cm long, 1.1 cm wide, .25 cm thick, and is made of a fine whitish color chert -- probably Florence which ranges from grey to white in color.

While no new prehistoric sites were found, relatively complete evaluation of the Euro-American historic sites within the Public Use Areas was done. This work, discussing 32 historic sites, is documented in Appendix III. While it was not required by the Scope of Work it was performed to be thorough.

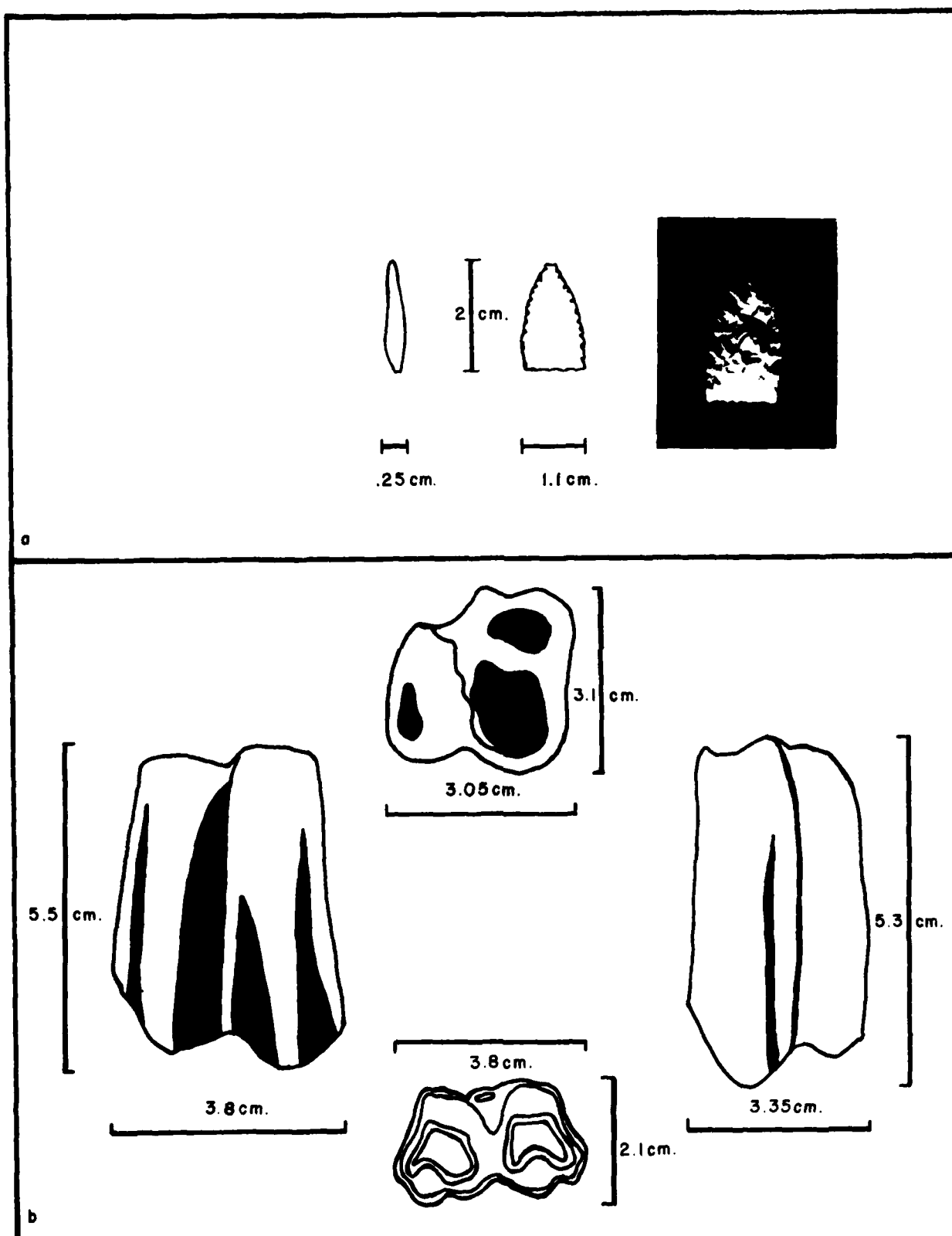


Fig. 19. Projectile point and bison tooth found on survey.



## CONCLUSIONS

At present there are 18 known prehistoric and 32 modern (pre-dam construction) historic archaeological sites in the Public Use Areas of Milford Lake. (See Appendix III for Historic Site Survey.)

Prehistoric Sites: All of the sites in the Clay County's Public Use Areas except one (14CY60), were excavated by Floyd Schultz before the construction of the dam. Therefore, they are not endangered because they do not exist. Site 14CY60 is on the shoreline, but since cultural debris does not extend into the bank (O'Brien 1976:22) the site may be basically destroyed today.

Of the 13 sites in Geary County's Public Use Areas the following is reported. Site 14GE6, the James Younkin site, was excavated (Schultz and Spaulding 1948) and is not endangered. Site 14GE127 was a Smoky Hill site excavated in 1964 (Sperry 1965). Although further materials were present at the site in 1975, no testing of it was done. Today it has been buried under large limestone rocks (riprap), which will protect it. Sites 14GE37, 14GE38 and 14GE50 were not recommended for testing in the past, but continue to be impacted by erosion. Their status is not changed. Site 14GE13 was a potted burial mound and although its condition is unchanged, it is not endangered at present. Sites 14GE18, 14GE19 and 14GE31 were recommended for testing in 1964, but were inundated during this survey. Testing of these sites has not been done. Site 14GE30 is a habitation site and 14GE34 is a mound. They are in grass and basically not endangered. Sites 14GE37 and 14GE38 are on the shoreline and continue to erode. Site 14GE47 was given highest priority for testing (O'Brien

1976:30) but that work has not been done.

Finally, since the original land surface in the Public Use Areas has been so completely transformed by heavy equipment it makes no sense to expend monies to survey the remaining 85% of the land. Rather, the Corps of Engineers should survey as rapidly as possible those areas under cultivation and subject to annual inundations (maximum flood pool) as well as those under cultivation outside of the maximum flood pool. These are the areas where future sites are to be located, and areas subject to the greatest annual impacts.

Consideration should be given to testing those sites which continue to erode. Those recommendations must be fulfilled in order to assess the sites eligibility for nomination to the National Register of Historic Places.

Historic Sites: These sites are currently protected by grass and brush, and so are not in immediate danger of impaction. Since these sites are under 50 years of age, they are not eligible for nomination to the National Register of Historic Places. They should be evaluated in 1994 for eligibility. At this time the state of the nineteenth and twentieth century, Kansas Euro-American archaeological problem orientation does not justify their excavation. Rather, they should continue to be preserved for the future as a type of archaeological data bank.

## ACKNOWLEDGEMENTS

An appreciative thanks given to the personnel of the Kansas City District, U.S. Army Corps of Engineers and to my crew assistant Dave Schirer who was an invaluable aid in the field. Additional help was given by individuals living near the project area: Nora Seley, Thelma Lundquist, Ruth Sanders, Annetta Hayes, Fern Normanden and John B. Jeffries, all of whom shared their historical knowledge of the area for which I am most grateful. A special thanks is due Mr. Brown, Milford Lake's resident engineer of the U. S. Army Corps of Engineers and his personnel whose cooperation facilitated the smoothness of the field work. Finally thanks goes to Dr. Patricia J. O'Brien for her help throughout the project.

## REFERENCES CITED

## PERSONAL SOURCES

Nora Seley, Milford, Kansas

Thelma Lundquist, Milford, Kansas

Ruth Sanders, Junction City - Riley County Courthouse

Annetta Hayes, Wakefield, Kansas

Fern Normandin, Wakefield, Kansas

Joseph Smalley, Kansas State University, Manhattan, Kansas

## PUBLISHED SOURCES

Bell, Robert E.

- 1960 Guide to the Identification of Certain American Indian Projectile Points. Oklahoma Anthropological Society, Special Bulletin No. 2

Blackman, Frank W., Editor

- 1912 Kansas, a Cyclopedia of State History Embracing Events, Institutions, Industries, Counties, Cities, Towns, prominent persons, etc.; Volume #1 Standard Publishing Company, Chicago.

Eyman, C. E.

- 1966 The Schultz Focus: A Plains Middle Woodland Burial Complex in Eastern Kansas, unpublished M.A. thesis, Department of Archaeology, University of Calgary.

Gilbert, Miles B.

- 1973 Mammalian Osteo-Archaeology North America. Special publications Missouri Archaeological Society, 15 Switzler Hall; University of Missouri, Columbia, Missouri.

Kivett, Marvin F.

- 1949 "The Woodland Pottery Type from Nebraska" in Proceedings of the 5th Plains Conference for Archaeology, Notebook No. 1, Laboratory of Anthropology. University of Nebraska, pp. 67-69. Lincoln.

Marshall, J. O. and T. A. Witty, Jr.

- 1966     The Bogan Site, 14GE1: An Historic Pawnee Village.  
           Manuscript on file at the Kansas State Historical Society.

Muller, J. D. and Schock

- 1964     Appraisal of the Archaeological Resources of the Milford Reservoir, Geary, Clay, Riley, Dickinson Counties Kansas.  
           Manuscript on file at Museum of Anthropology, University of Kansas.

O'Brien, P. J.

- 1976     Milford Lake Shoreline Archaeological Survey; prepared for the National Park Service, Midwest Archaeological Center, Lincoln, Nebraska, Kansas State University, Manhattan, Kansas; 1976.
- 1978     Milford Lake, A Preliminary Cultural Resources Management Plan. Prepared for the Department of U.S. Army Corps of Engineers Kansas City District; Department of Sociology, Anthropology and Social Work, Kansas State University, Manhattan, Kansas.

Parks, Sharon G.

- 1978     Test Excavation at 14GE41 - A Schultz Focus Habitation Site at Milford Lake. Department of Sociology, Anthropology and Social Work, Kansas State University, Manhattan, Kansas.

Phelps, James R.

- 1972     A History of Wakefield, Kansas, 1869-1977. Wakefield Museum, Wakefield, Kansas, May 2, 1972.

Riley County Genealogical Society

- 1976     Pioneers of the Bluestem Prairie Kansas Counties: Clay, Geary, Marshall, Pottawatomie, Riley, Wabaunsee, Washington. 1st edition; Manhattan, Kansas.

Schmits, Larry J.

- 1978     The Coffey Site: Environment and Cultural Adaptation at a Prairie Plains Archaic Site. Midcontinental Journal of Archaeology, Special Paper No. 1, pp. 69-185.

Schoewe, Walter H.

- 1949     "The Geography of Kansas": Transactions of the Kansas Academy of Science; Vol. 52, No. 3, pp. 261-333; September, 1949.

- 1951 "The Geography of Kansas"; Transactions of the Kansas Academy of Science; Vol. 54, No. 3, pp. 263-329; September, 1951.

Schultz, F., and Spaulding, A. C.

- 1948 "A Hopewellian Burial Site in the Lower Republican Valley, Kansas" American Antiquity; Vol. 13, No. 4, pp. 306-313.

Self, Huber

- 1978 Environment and Man in Kansas - A Geographical Analysis; The Regents Press of Kansas, Lawrence.

Shenkel, Claude W., Jr.

- 1966 A Laboratory Manual for Historical Geology, W.M.C. Brown Book Company, 135 So. Locust Street, Dubuque, Iowa.

Sperry, James E.

- 1965 Cultural Relationships of the Miller and Rush Creek Archaeological Sites on the Lower Republican River of Kansas. Unpublished M.A. Thesis, Department of Anthropology, University of Nebraska, Lincoln.

U.S. Army Corps of Engineers

- 1965 Milford Dam and Reservoir Design Memorandum Number 4C; Master Plan U.S. Army Engineer District, Kansas City Corps of Engineers; April, 1965.

U.S. Department of Agriculture

- 1950 Physical Land Conditions Affecting Use Conservation and Management of Land Resources, Clay County, Kansas. Issued by the U.S. Department of Agriculture, Soil Conservation Service and Kansas Agricultural Experiment Station Cooperating; August, 1950.
- 1951 Physical Land Conditions Affecting Use, Conservation and Management of Land Resources, Geary County, Kansas. Issued by The U.S. Department of Agriculture, Soil Conservation Service, Kansas Agricultural Experiment Station Cooperating; February, 1951.

Wedel, Waldo R.

- 1959 An Introduction to Kansas Archaeology. Bureau of American Ethnology, Bulletin 174.

Witty, T. A. Jr.

1963     The Woods, Avery and Streeter Archaeological Sites, Milford Reservoir, Kansas. Kansas State Historical Society, Anthropological Series No. 2.

1969     "Notes on Flint Hills Archaeology" Kansas Anthropological Association Newsletter, Vol. 14, no. 8, pp. 1-6.

Woman's Missionary Society

n.d.     Centennial Cook Book, History of Milford, Kansas 1855-1961; Woman's Missionary Society of the Congregational Church, Milford, Kansas.

APPENDIX I

SCOPE OF WORK



# SCOPE OF WORK

## Cultural Resources Sample Survey of Public Use Areas Milford Lake, Kansas Republican River

### 1. INTRODUCTION

a. Milford Lake is an operating project located on the lower Republican River in Riley, Geary, Clay, and Dickinson Counties, Kansas. The project consists of 44,520 acres of Government-owned land, of which about 16,000 acres are permanently inundated by the lake. A portion of the project shoreline is on the Fort Riley Military Reservation; however, except for those archeological sites adversely affected by erosion, this sample survey shall apply only to civil works lands.

b. To date, the following cultural resources studies have been conducted at Milford Lake:

- 1961 Witty Jr., T.A.  
"Archeological Investigation on the Milford Reservoir, Clay County, Kansas".
- 1963 Witty Jr., T.A.  
"The Woods, Avery and Streeter Archeological Sites, Milford Reservoir, Kansas".
- 1964 Muller, J.D. and Schock, J.M.  
"Appraisal of the Archeological Resources of the Milford Reservoir, Geary, Clay, Riley, and Dickinson Counties, Kansas."
- 1967 Marshall, J.O. and Witty Jr., T.A.  
"The Bogan Site, 14GE1, An Historic Pawnee Villiage".
- 1976 O'Brien, P.J.  
"Milford Lake Shoreline Archeological Survey".
- 1978 O'Brien, P.J.  
"Milford Lake Preliminary Cultural Resources Management Plan".
- 1978 Parks, Sharon G.  
"Test Excavations at GE41: A Shultz Focus Habitation Site, at Milford Lake, Kansas."

c. The work defined herein, to be performed by the Contractor is called for in the National Historic Preservation Act of 1966 (PL 89-665) and is authorized for funding under Public Law 86-523 as amended by Public Law 93-291. Accomplishment of this work will provide documentation evidencing compliance with Executive Order 11593 "Protection and Enhancement of the Cultural Environment" dated 13 May 1971, Section 2(a).

## 2. SCOPE

This work encompasses archeological survey of 15% (approximately 600 acres) of each of the Public Use Areas within the project and identification of materials recovered. The Contractor and his staff shall conduct this study in a professional manner, using accepted methodology in accordance with 36CFR66 and 33CFR305. The Contractor shall be responsible for the preparation of a report of findings, fulfilling the requirements stated below.

## 3. STUDY APPROACH

a. Survey. The survey for archeological resources can be accomplished by scientific investigation based on a research design as stated in 33CFR305.18 and 36CFR66, and approved by the Government. Recovery of data and cultural material shall be in accordance with 36CFR66. Proper curation of recovered materials, and documentation of data is vital.

b. Problem Orientations. A preliminary cultural resources management plan for the project area has identified sites that are most affected by project operations. Past work concentrated on survey of project lands and testing of approximately 27 sites. This study is to be oriented toward a sample survey of the Public Use Areas to locate and evaluate archeological sites within the Milford project area.

Recommendations for a basic orientation for investigation of these sites have been broadly outlined in the 1978 Milford Lake Preliminary Cultural Resources Management Plan.

c. Methodology. Justification for the locations selected has been stated in the 1978 report. In order to investigate sites the Contractor shall, in accordance with the research design, use accepted and appropriate field and lab methods in accordance with 36CFR66 including but not limited to the following:

- (1) Survey 15% of each of the Public Use Areas listed below:

Rolling Hills	Clay County Park
Curtis Creek	Timber Creek
School Creek	Farnum Creek
Clayview	Outlet
Milford City Park	Milford-Pleasant View State Park

- (2) No extensive testing is required under this purchase order; however, delineation of site boundaries will be necessary.

- (3) Collect a sample of surface cultural materials at each site.

- (4) Photograph phases of field work, using black and white film and also illustrate diagnostic features and artifacts by either black and white photography or line drawings.

(5) Record provenience of features, including maps and graphs when applicable.

(6) Collect materials for absolute dating (e.g. radio-carbon) when appropriate.

(7) Process, catalog, and curate all recovered materials.

(8) Make identifications of cultural materials to answer the research design and to provide a base for future use by the archeological profession as data for research.

(9) Perform all Measurements using the metric system.

(10) All sites found will be recorded on the State of Kansas Archeological Survey Form and assignment of new site numbers shall be coordinated with the State Archeologist.

#### 4. SCHEDULE OF WORK

a. Coordination and Meetings. The Contractor shall pursue the study in a professional manner to meet the schedule specified. Prior to the initiation of actual field work, the Contractor shall submit a research design for review and approval as stated in Section 3a. He shall also coordinate all field schedules and activities with the appropriate cultural resources coordinator, State Historic Preservation Officer's (SHPO) representative, and the project office.

During the course of the study, the Contractor shall review the progress of the work performed with representatives of the Corps of Engineers and the SHPO.

The Contractor shall attend one meeting at the Kansas City District Office to discuss the review of the draft of the report.

#### b. Report Content and Schedule.

(1) A report of findings shall be prepared by the Contractor and his staff. The main text of the report shall be written in a manner suitable for reading by persons not professionally trained as archeologists. Detailed presentation and discussion of data of interest to the archeological profession shall be included in a second part of the report or as appendices. The report is intended to be of use and interest to the general public as well as of value to the profession. Use of illustrations is encouraged.

(2) The report of findings shall be authored by either the principal investigator or project director. The principal investigator is the person responsible for day to day activities including field supervision, analysis of work, and write-up of the initial draft of the report. The project director is that person who oversees and administers the contract or purchase order and who does the final editing of the report. The archaeologist (regardless of title) whose credentials are used to justify the assumption of professional work being performed preferably should be the author but at the very least, should be co-author of the report.

(3) Thirteen (13) copies of a complete draft of the report shall be submitted to the Contracting Officer for purposes of Governmental review within eight (8) months after receipt of notice to

proceed. (If excessive inclement weather or other delays occur, this date may be extended to one mutually agreed upon between the Government and the Contractor.) In addition to standard review procedures, the Government may (at its discretion) send the draft report and Scope of Work to three qualified professionals not associated with a State or Federal Governmental agency for peer review of the merits and acceptability of the report. After a review period of approximately two (2) months, the Government will return the draft to the Contractor. The Contractor shall then complete necessary revisions and submit the final report, which shall be professionally edited, within sixty (60) calendar days after receipt of the reviewed draft. The Contractor shall submit one set of originals and two copies of the final report of findings to the Government. The copies shall include all plates, maps, and graphics in place so that they may be used as patterns for assembling the final report. The Government will edit the final report and after approval, will reproduce this report and provide the Contractor ten (10) copies for personal use, plus two (2) copies for each major contributing author.

(4) The report shall include the following:

- a. Description of the study area;
- b. A discussion of each site investigated and identification of data mentioned above. A detailed description of sites and limited discussion of the recovered artifacts, presented both in support of the discussion in the text and also as valuable data for professional use of the report;
- c. A detailed description of the methods used in field and lab work;
- d. Recommendations which could be added to the preliminary cultural resources management plan for the operating project, and any suggestions for the archeological portion of the interpretive program;
- e. Illustrations, photos, maps, tables, and graphic representations of data appropriate to the text, such as illustrations of diagnostic artifacts;
- f. Maps of the project indicating areas surveyed during this study. This map should also include all known sites. (Color overlay reproduction is available.) Maps for inclusion in the report must be presented in such a manner that exact site locations are not disclosed.
- g. A glossary of terms;
- h. Reference section with all sources referred to in text or used for report, personal communications, interviews, bibliography, etc.,

i. Copies of all correspondence pertaining to review of the draft report. These are to include the comments of the State Historic Preservation Officer, Heritage Conservation and Recreation Service, and the peer reviews (if applicable) by professional archaeologists requested by the Government, together with responses to each of the comments given. The Scope of Work is to be included in this section; and

j. Listing of principal investigators and field and lab personnel with their qualifications as an appendix.

(5) The final originals and two copies of the report shall be typed single-spaced on one side of paper with the margins set for reproduction on both sides of 8 x 10½ inch paper. One of the copies shall be assembled in accordance with the attached style sheet.

c. Other Information. Six copies of materials not suitable for publication in the report shall be submitted with the draft. These materials include feature maps, large amounts of specialized statistical data, repetitious photographs, a complete listing of all materials recovered, and other documentation not of interest to most readers of the report. Averages, graphs, or summaries of statistical data are to be included in the publishable report. Large masses of specialized statistical data, such as certain artifact measurements, shall be stored on computer tapes or in microfilm so that it can be made readily available to interested persons. Publication of such bulk statistics in the report is not appropriate.

d. Materials Not for Release. Materials dealing with exact archaeological site locations are considered confidential and are not to be published or released. Materials which shall accompany the report but which are not to be included in the report consists of:

(1) Six (6) copies of USGS and base maps indicating exact locations of all archaeological resources and areas which were physically surveyed, including one of which will be furnished directly to the SHPO.

(2) Six (6) copies of survey forms for any newly recorded sites discovered incidental to this contract. These shall be provided four (4) to the Government, and one each to the SHPO and the Kansas State Historical Society.

e. Storage of Materials. Attached to the letter of transmittal for the final report shall be a listing of all cultural materials found during the field investigations and a Certificate of Authenticity for these materials. Collections shall be properly stored in containers clearly marked "Property of the U.S. Government, Kansas City District, Corps of Engineers." Retrieval of these materials by the U.S. Army Corps of Engineers for use by the Government is reserved. If the materials are to be removed from the curatorial facilities, this action must be approved in writing by the Contracting Officer.

## 5. FURTHER RESPONSIBILITIES OF THE CONTRACTOR AND GOVERNMENT

### a. Contract Modifications.

(1) Because of the complex nature of the prehistoric and historic resources being surveyed, it is recognized that testing of additional sites may be required. If in the opinion of the Contracting Officer such additional work is needed, the contract will be modified pursuant to the provision of Article 4, Changes, of the Contract.

(2) The work identified in this document shall be complete in itself. There will be no assurance from the Government that additional work will follow, nor should such work be anticipated.

b. Data Availability. The Government shall provide the Contractor with available background information, maps, remotely sensed data reports (if any), and correspondence as needed. In addition, the Government will provide support to the Contractor regarding suggestions on data sources, format of study outline and report, and review of study progress.

c. Right-of-Entry and Crop Damages. The Contractor shall have right-of-entry on all property owned by the Government. Compensation for damages to crops planted on Government property leased to various individuals shall be the responsibility of the Contractor.

d. Publication. It is expected that the Contractor and those in his employ, may during the term of the contract, present reports of the work to various professional societies and publications. Outlines or abstracts of those reports dealing with work sponsored by the Corps of Engineers shall be sent to the Kansas City District Office for review and approval prior to presentation or publication. Proper credit shall be given for Corps of Engineers' sponsored work, and the Corps of Engineers shall be furnished six (6) copies of each paper presented and/or published report.

e. Court Testimony. In the event of controversy or court challenge, the Contractor shall make available, as appropriate, expert witnesses who performed work under this contract to testify on behalf of the Government in support of the report findings. If a controversy or court challenge occurs and testimony of expert witnesses is required, an equitable adjustment shall be negotiated.

f. Safety Requirements. The Contractor shall provide a safe working environment for all persons in his employ as prescribed by EM 385-1-1, "General Safety Requirements," a copy of which will be provided by the Government.

g. Evaluation for National Register. The Contractor shall evaluate newly found archeological sites to ascertain which sites warrant extensive testing and to determine their suitability for nomination to the National Register of Historic Places.

6. STAFF AND FACILITY REQUIREMENTS.

a. Project Director and Archeologist. Minimum qualifications are set forth in 36CFR66, Appendix C, which is provided on page 5381 in the Federal Register, Vol 42, No. 19 - January 28, 1977.

b. Consultants. Personnel hired or subcontracted for their special knowledge and expertise must carry academic and experiential qualifications in their own fields of competence.

c. Equipment and Facilities. The Contractor must also provide or demonstrate access to:

(1) Adequate permanent field and laboratory equipment necessary to conduct operations defined in the Scope of Work; and

(2) Adequate laboratory and office space and facilities for proper treatment, analysis, and storage of specimens and records likely to be obtained from the project.

## APPENDIX II

Figures 3-18

Maps of Public Use Areas of Milford Lake



The following maps show the nature of the ground cover and the visibility of the ground of the Public Use Areas of Milford Lake. In addition, the shovel testing program is indicated in red allowing the reader to see the approximate locations of the tests (see the ground cover maps).

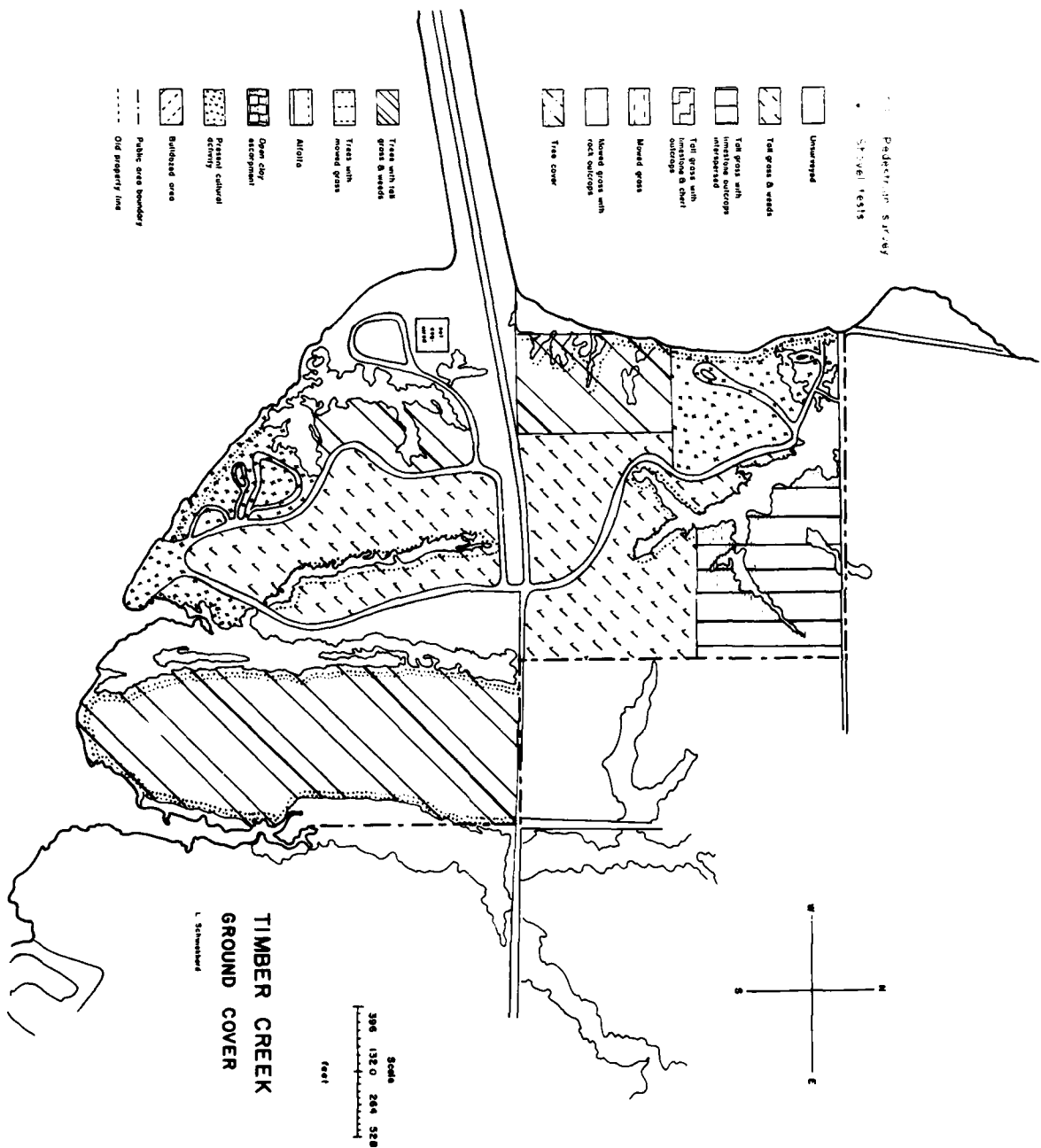


Fig. 3. Timber Creek Public Use Area: Ground Cover.

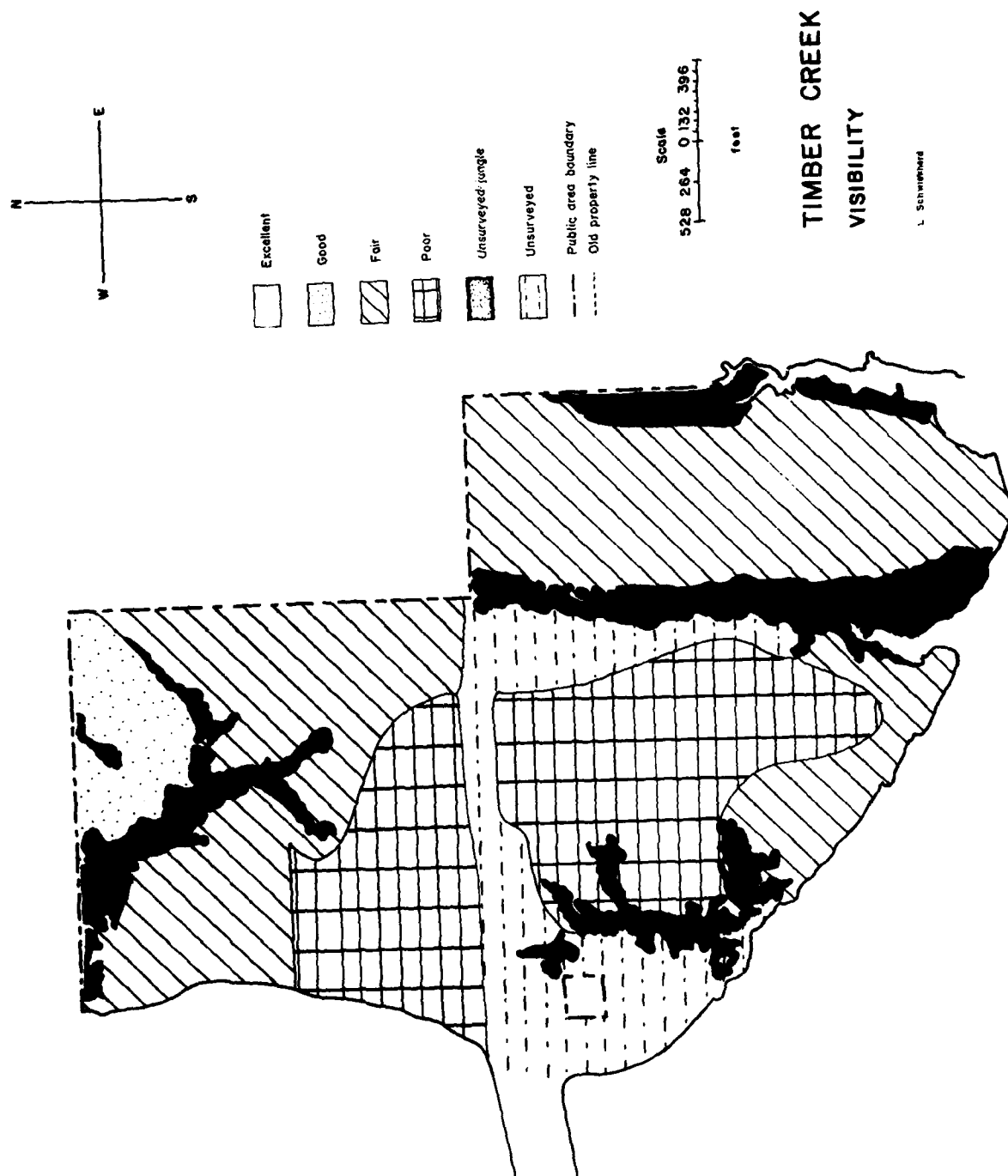


Fig. 4. Timber Creek Public Use Area: Visibility.

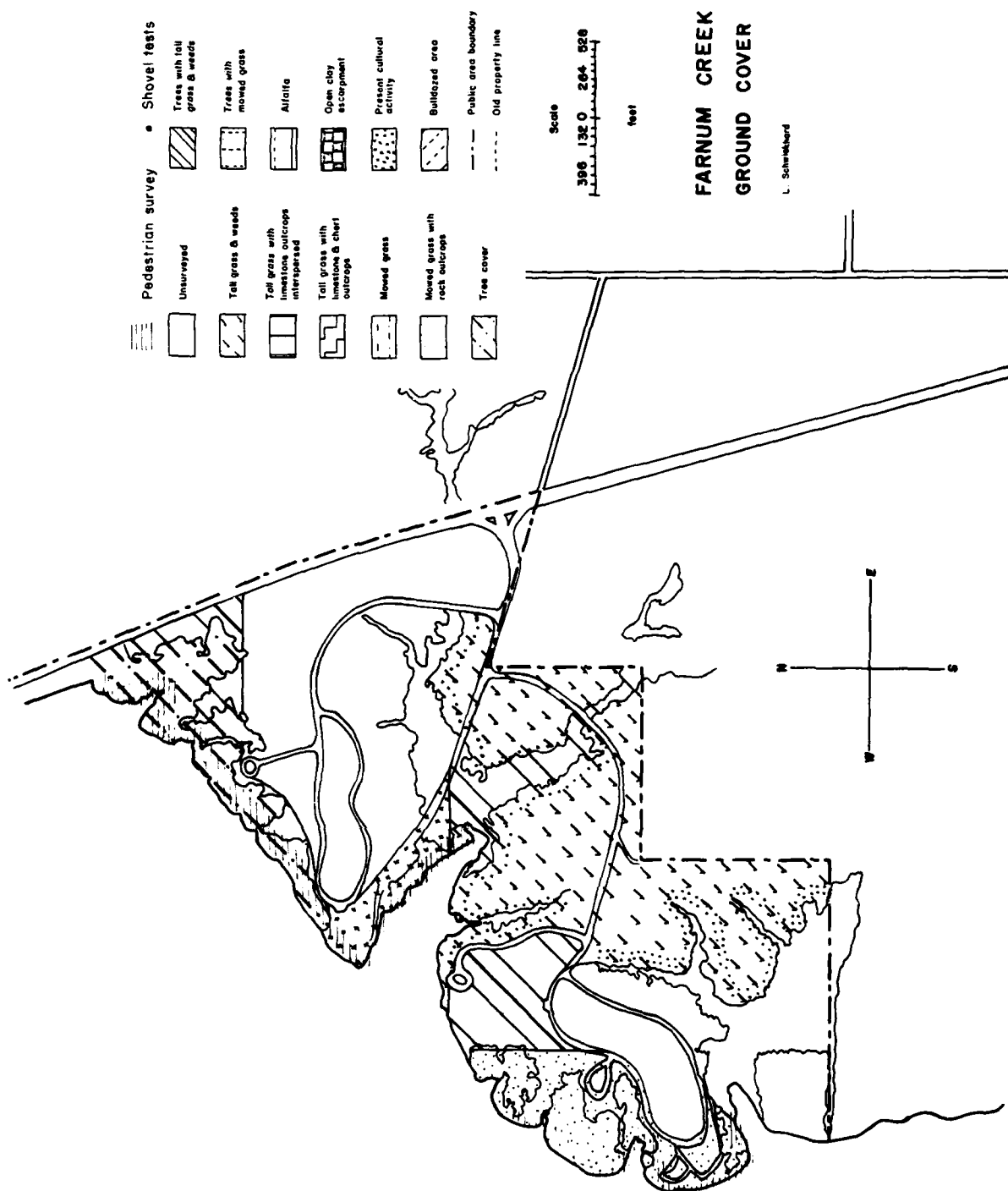


Fig. 5. Farnum Creek Public Use Area: Ground Cover.

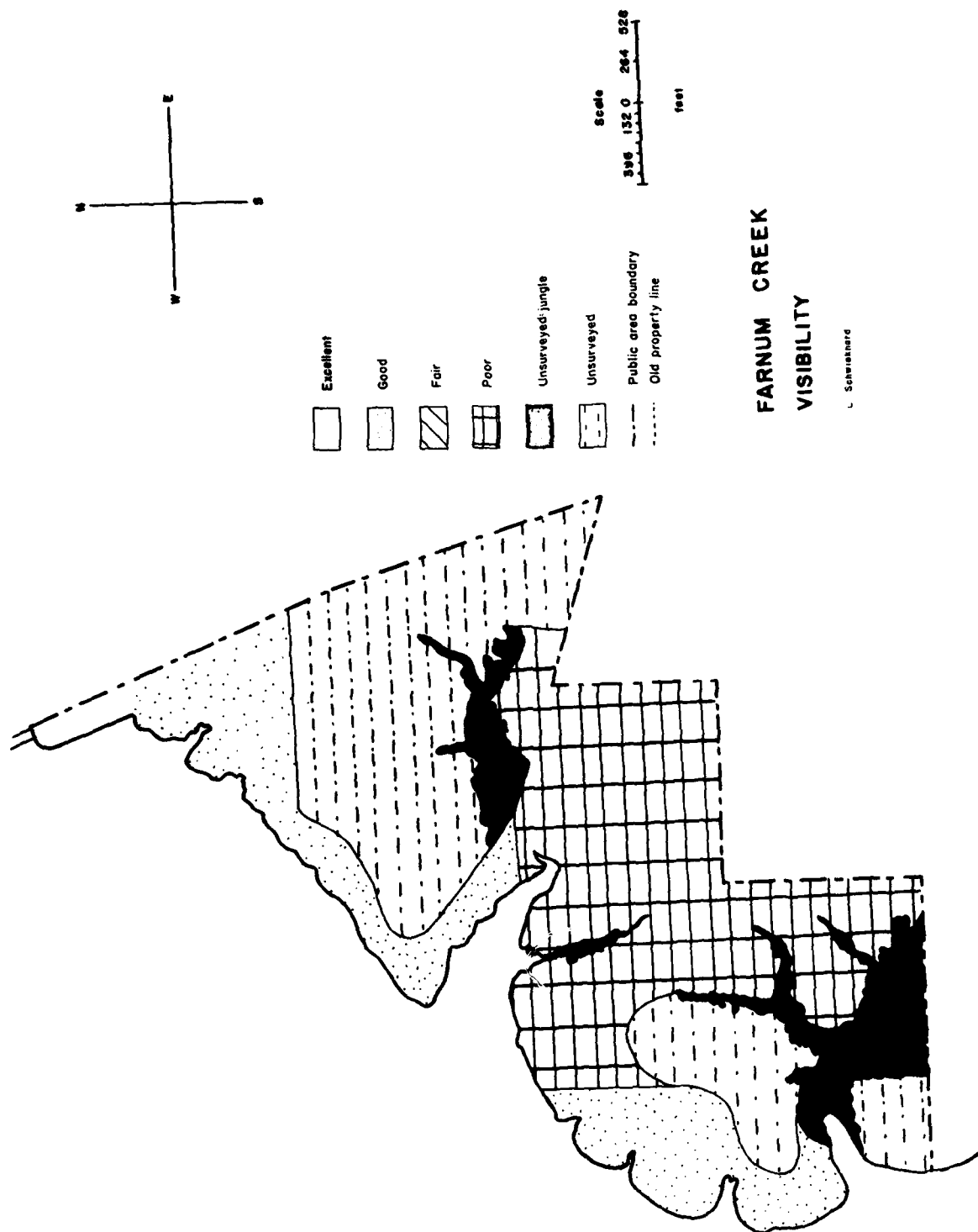
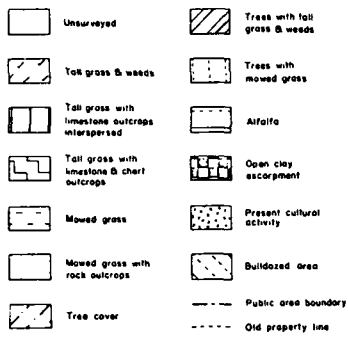
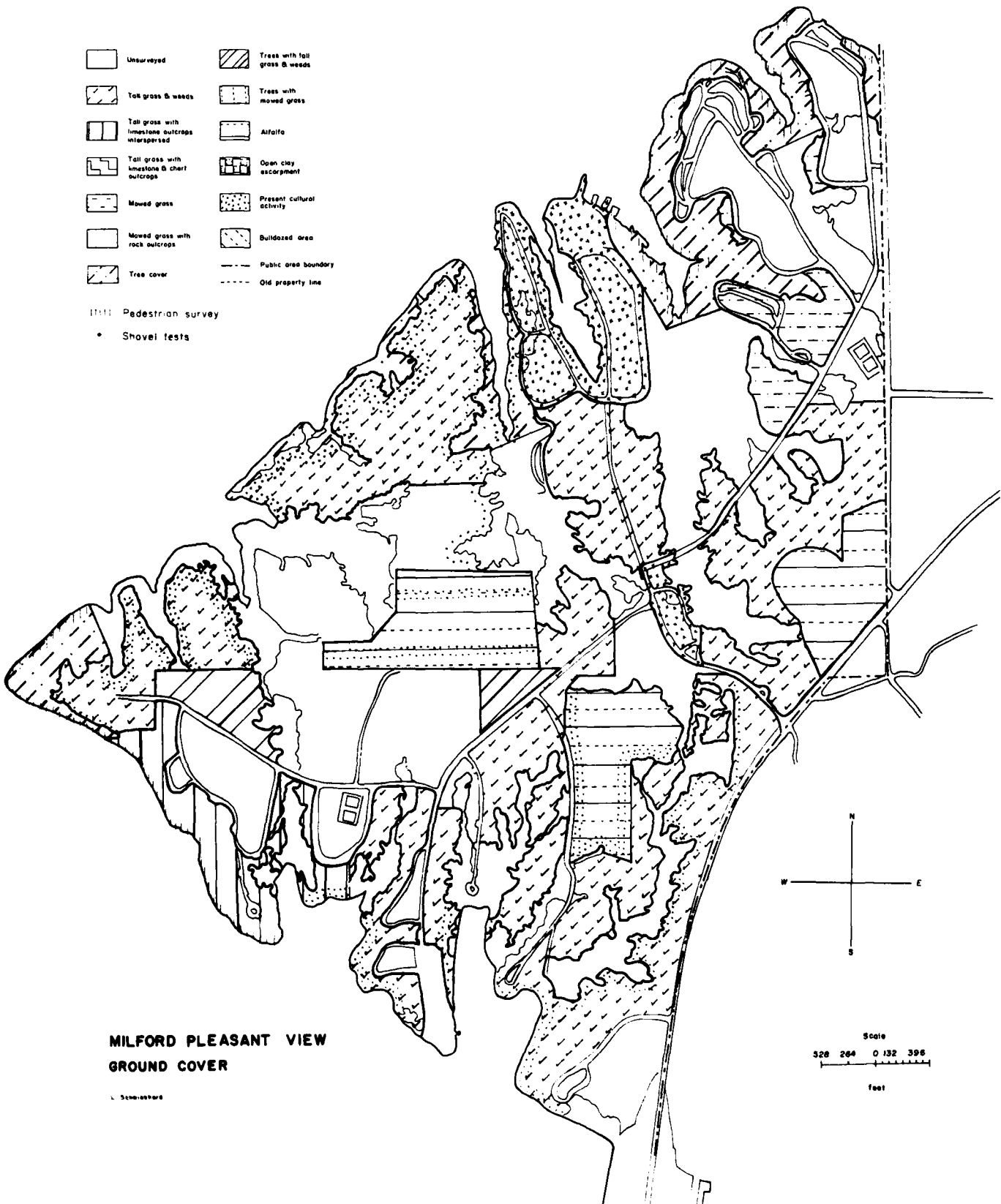


Fig. 6. Farnum Creek Public Use Area: Visibility.



||||| Pedestrian survey

• Shovel tests



# **MILFORD PLEASANT VIEW GROUND COVER**

L. Schenck

Scale  
528 264 0 132 396  
feet

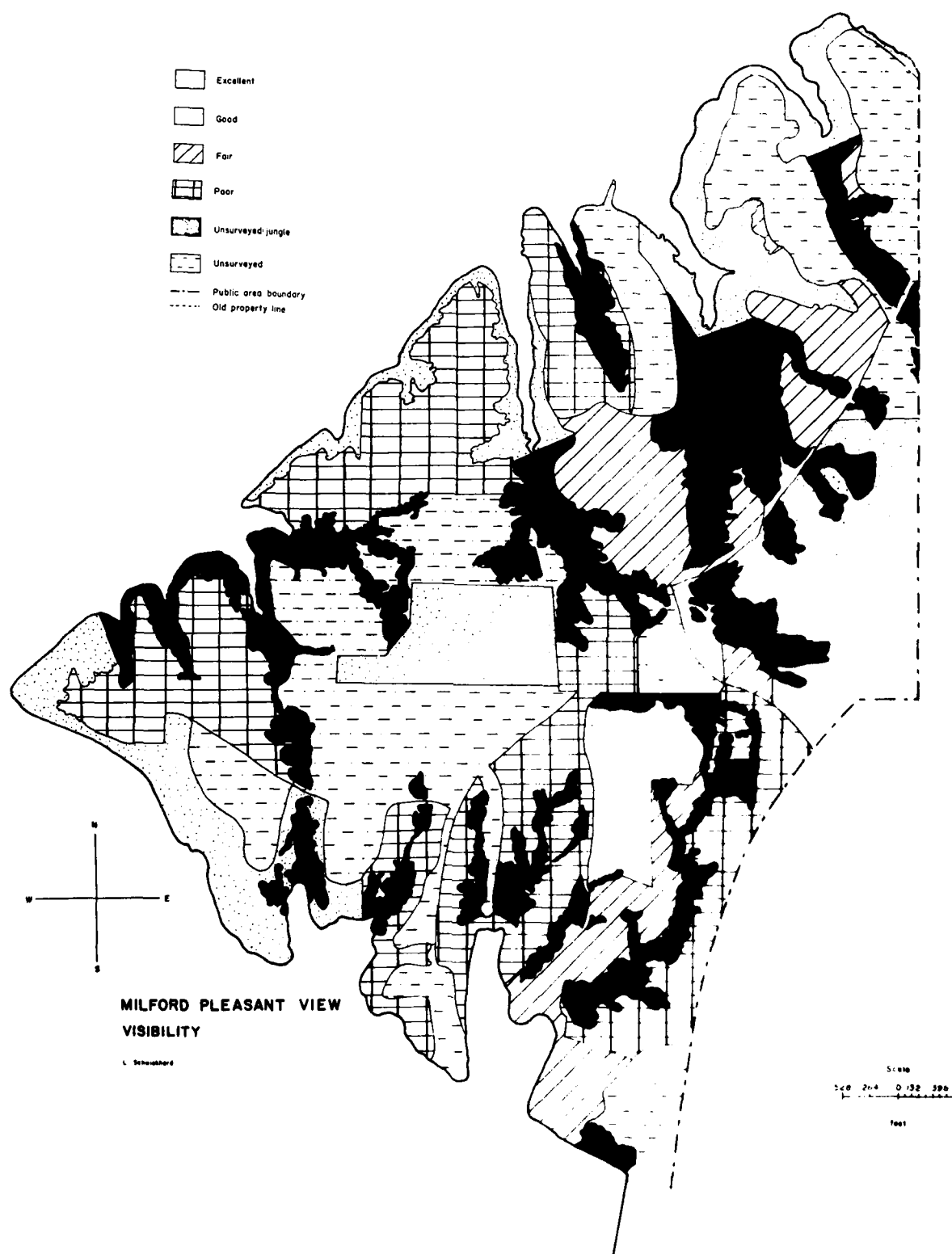


Fig. 8. Milford-Pleasant View Public Use Area: Visibility.

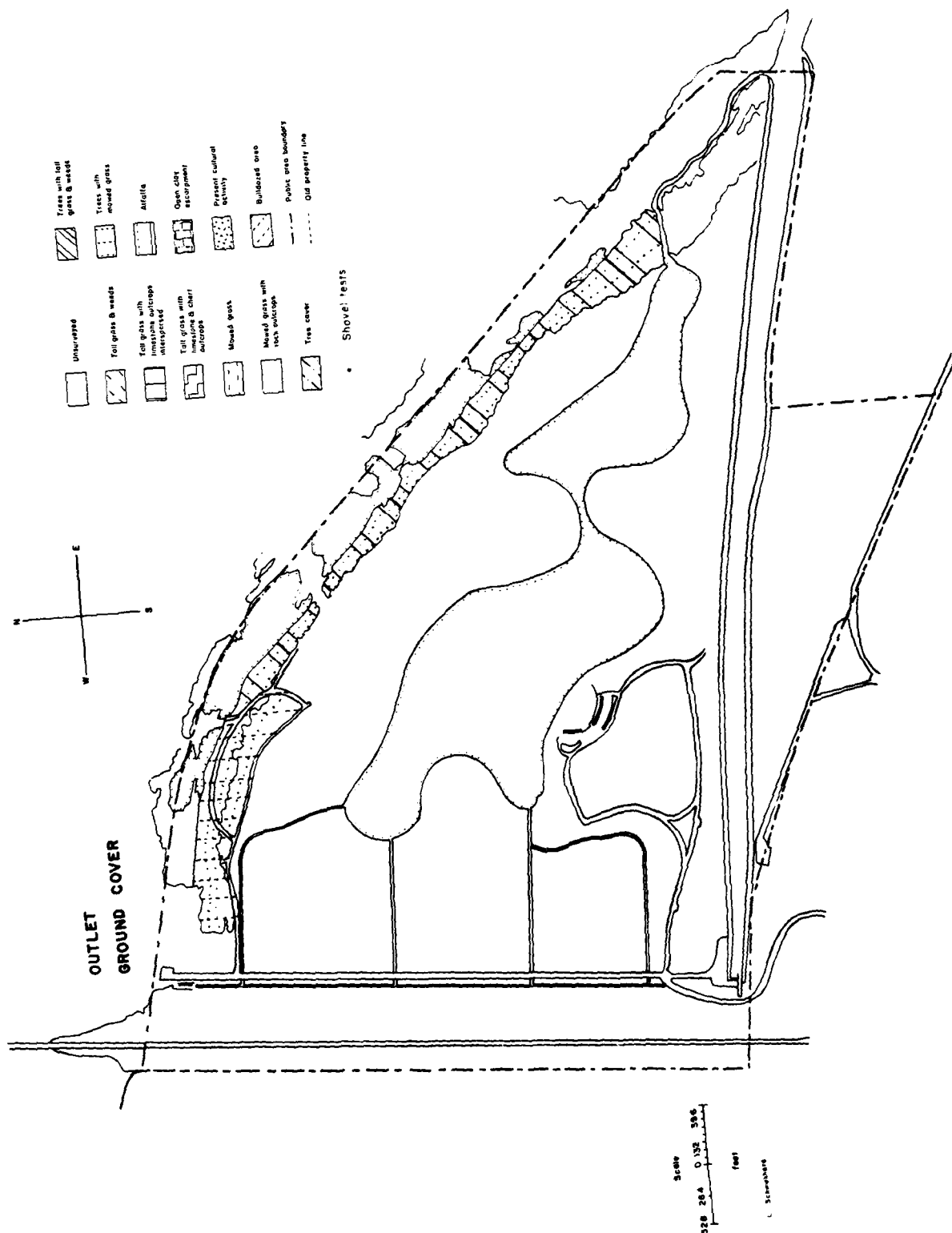


Fig. 9. Dam Outlet Public Use Area: Ground Cover.



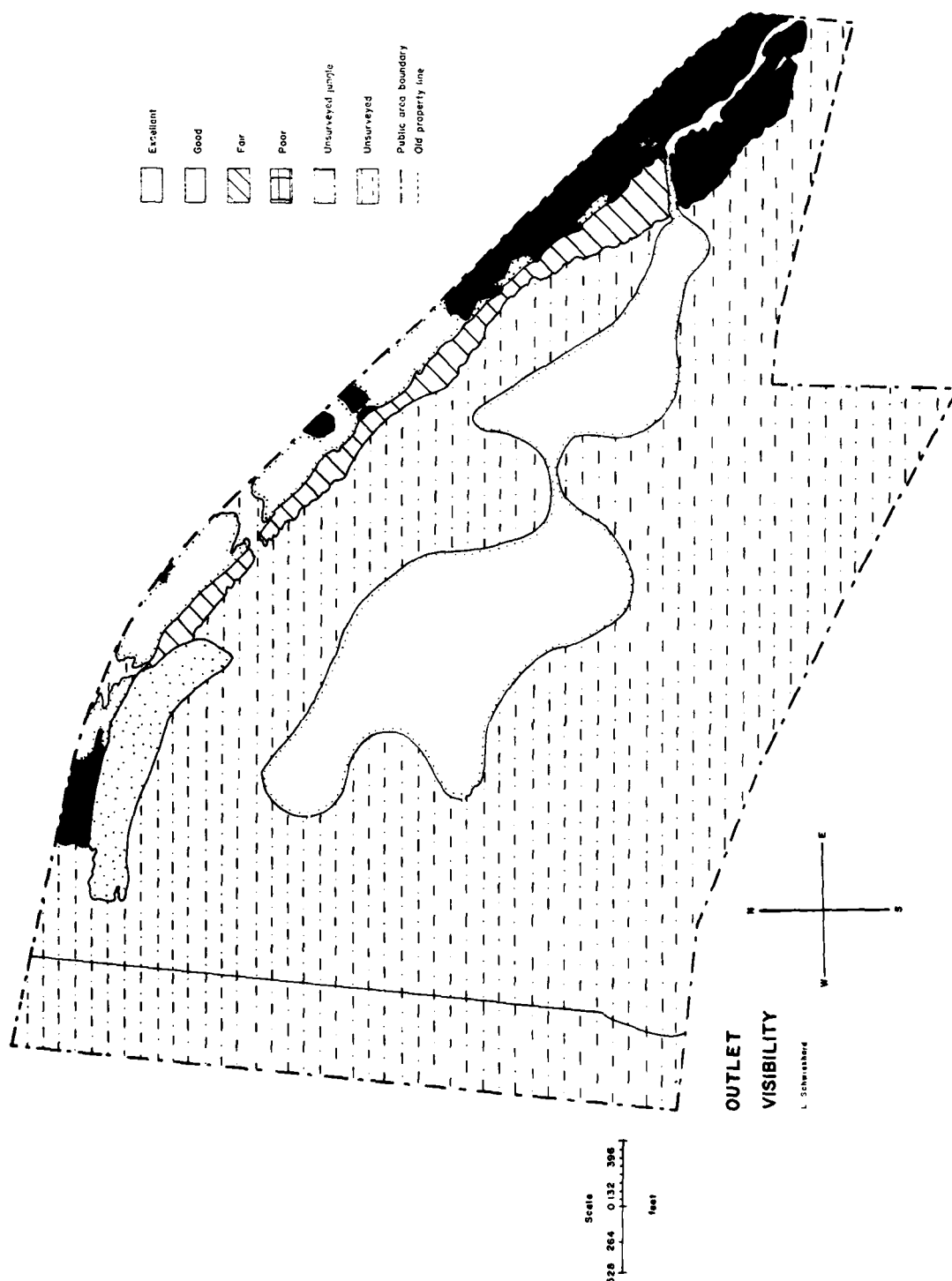


Fig. 10. Dam Outlet Public Use Area: Visibility.

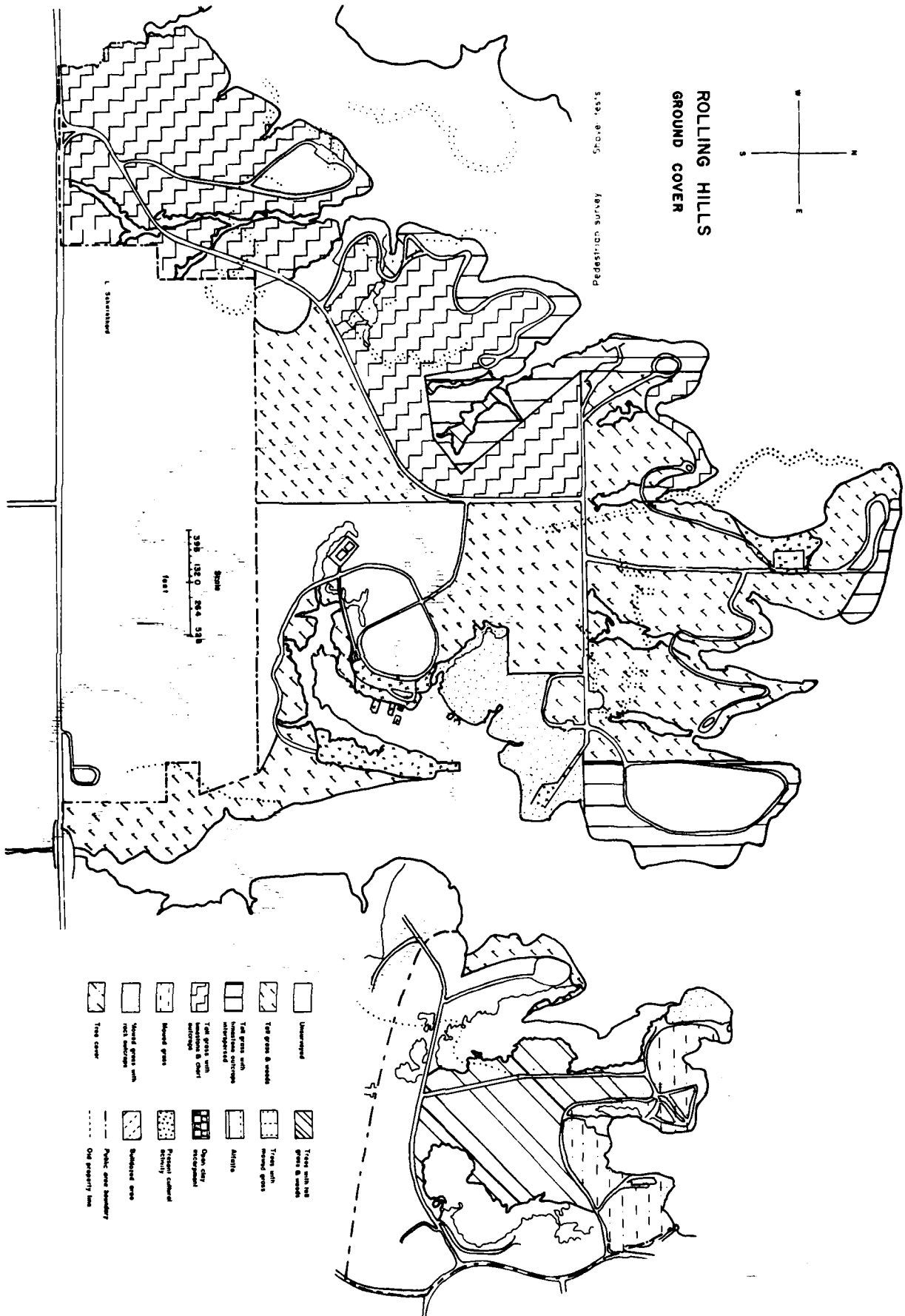


Fig. 11. Rolling Hills Public Use Area: Ground Cover.

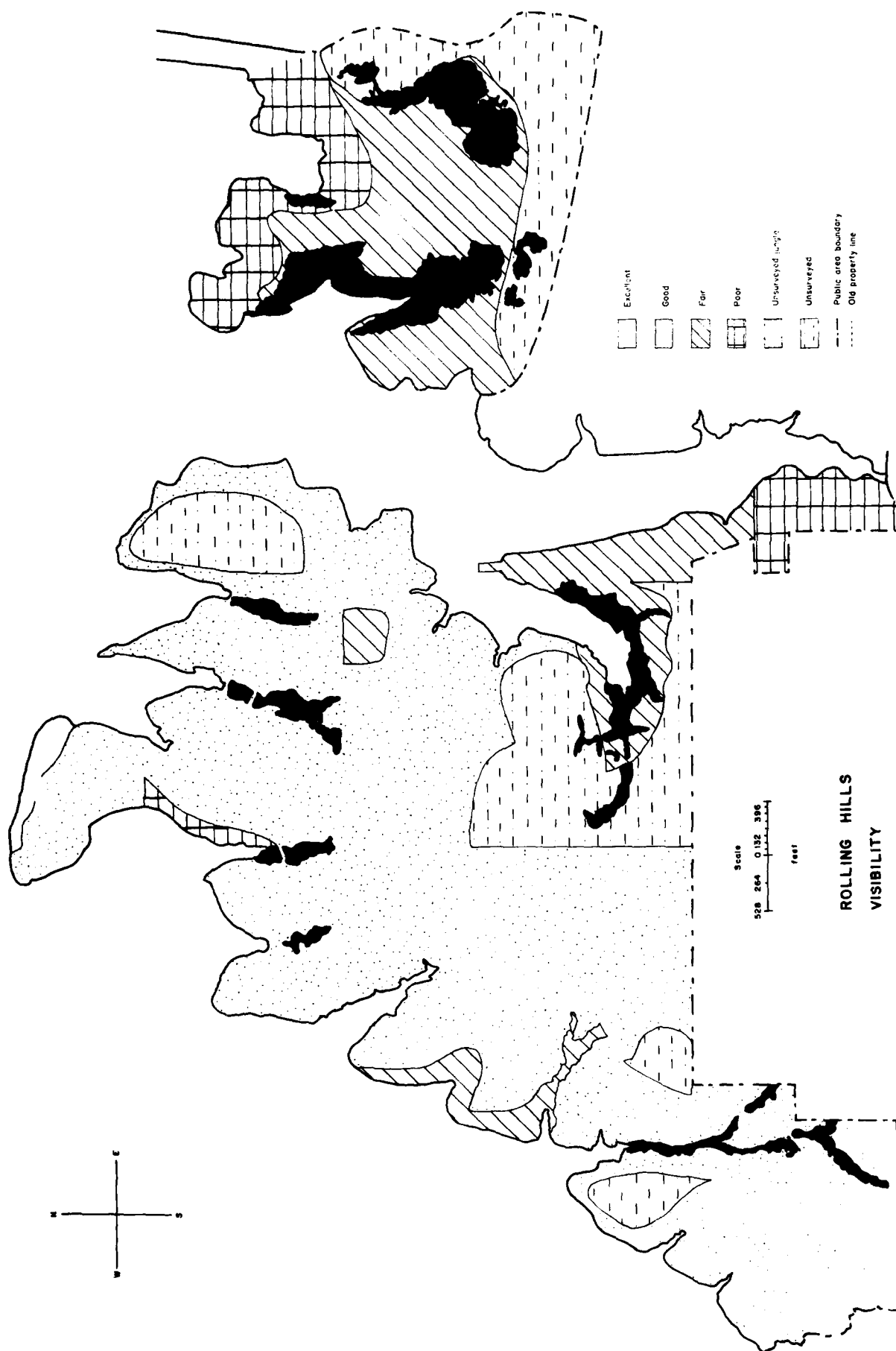


Fig. 12. Rolling Hills Public Use Area: Visibility.

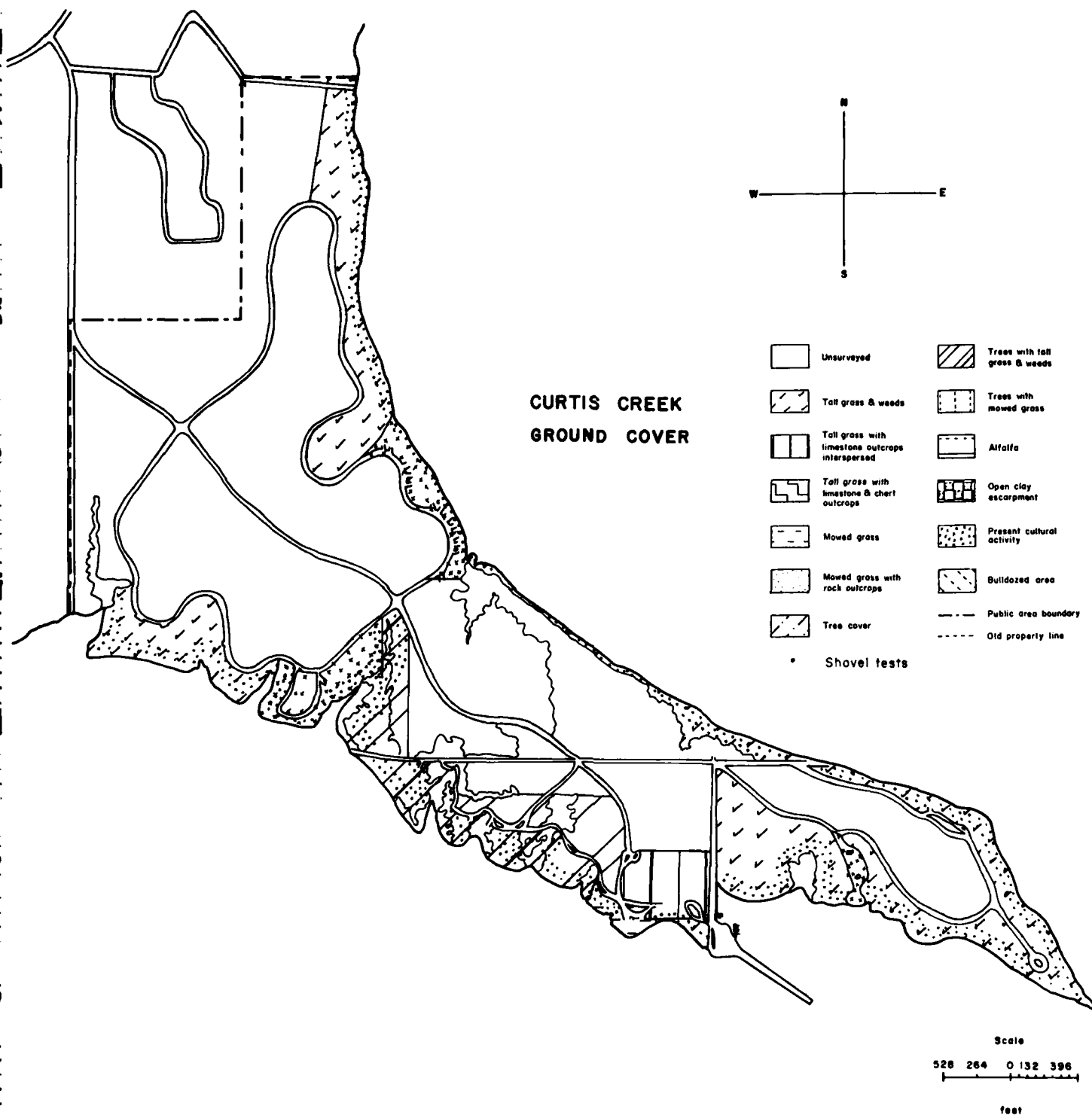


Fig. 13. Curtis Creek Public Use Area: Ground Cover.

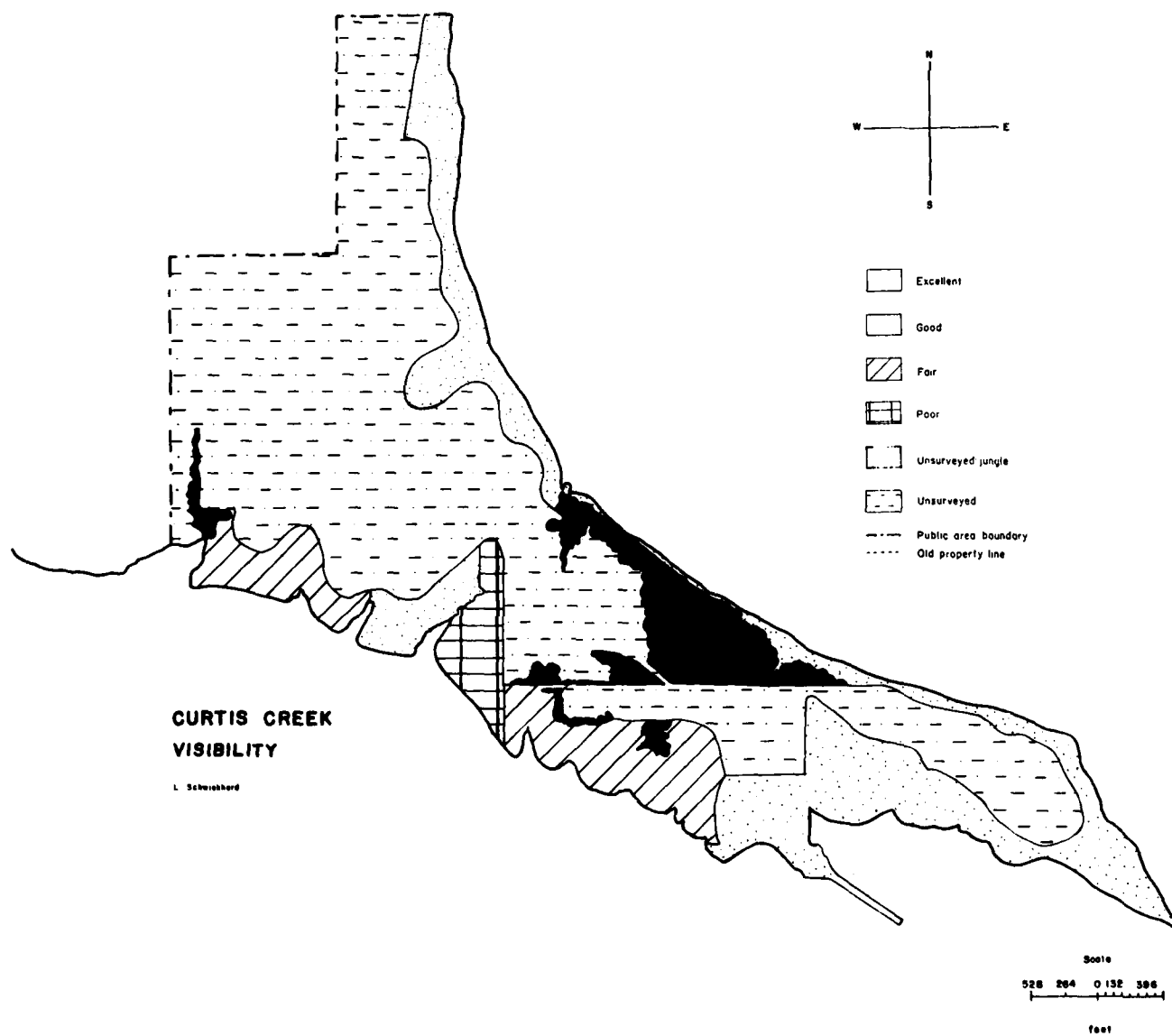


Fig. 14. Curtis Creek Public Use Area: Visibility.

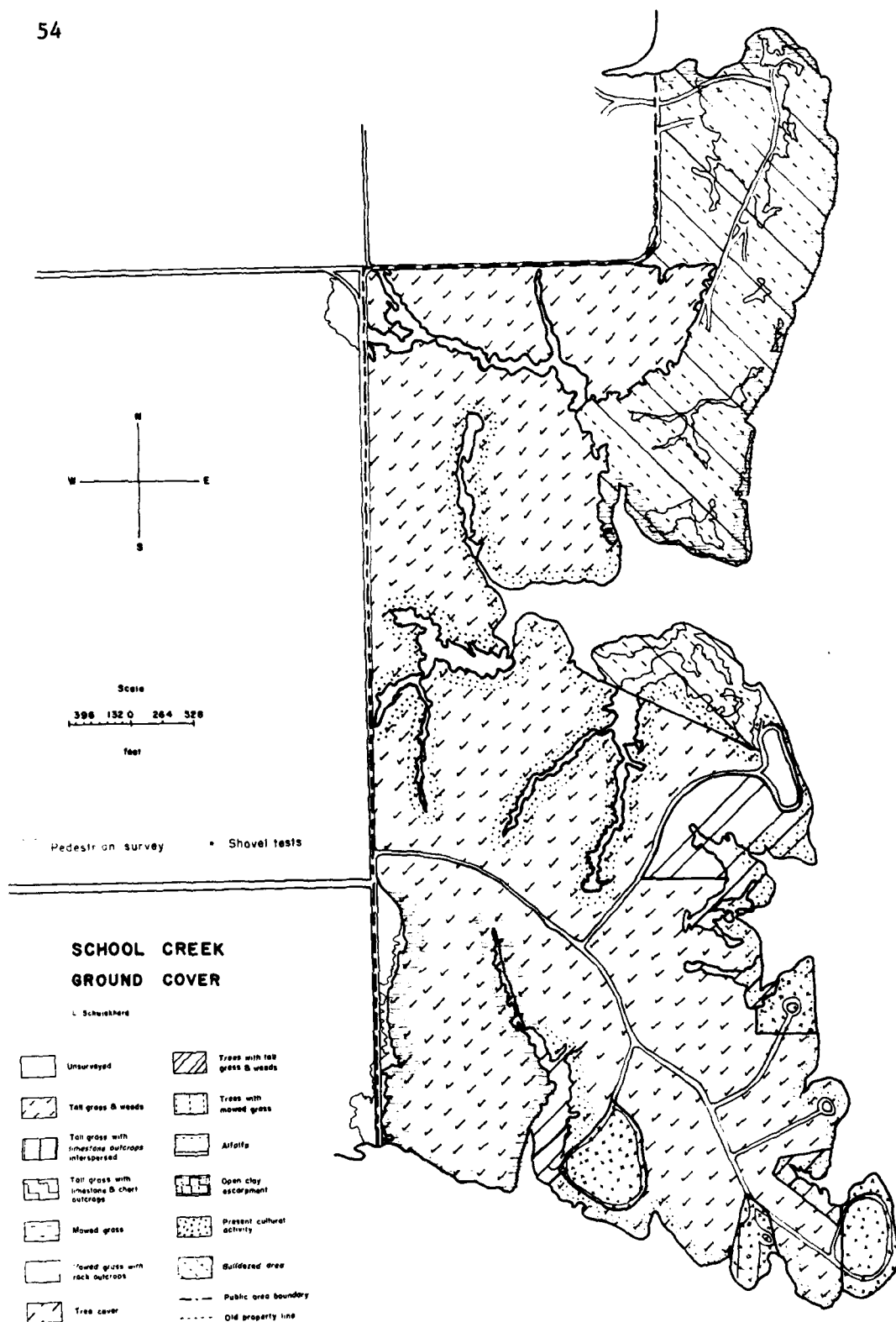


Fig. 15. School Creek Public Use Area: Ground Cover.

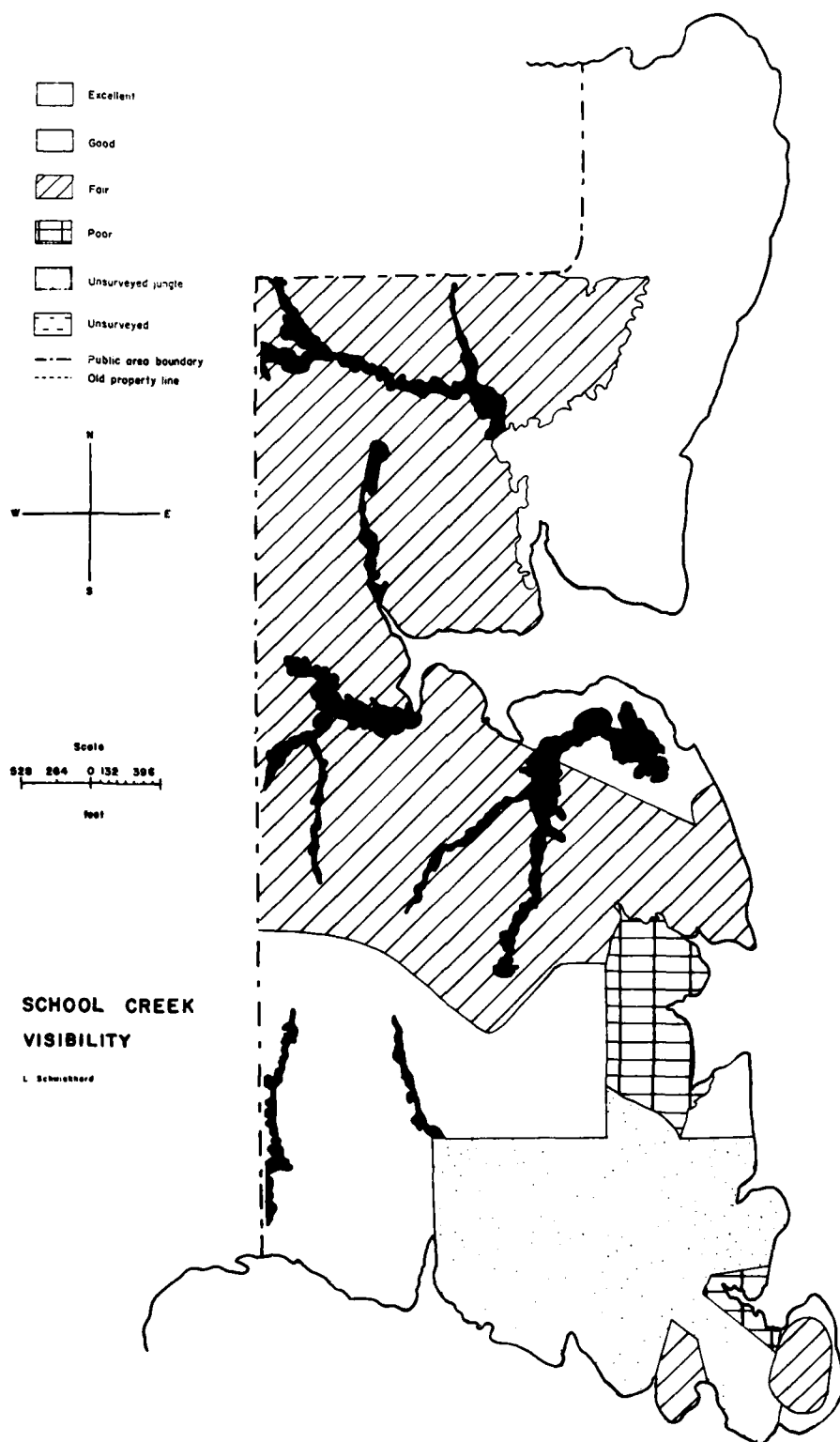
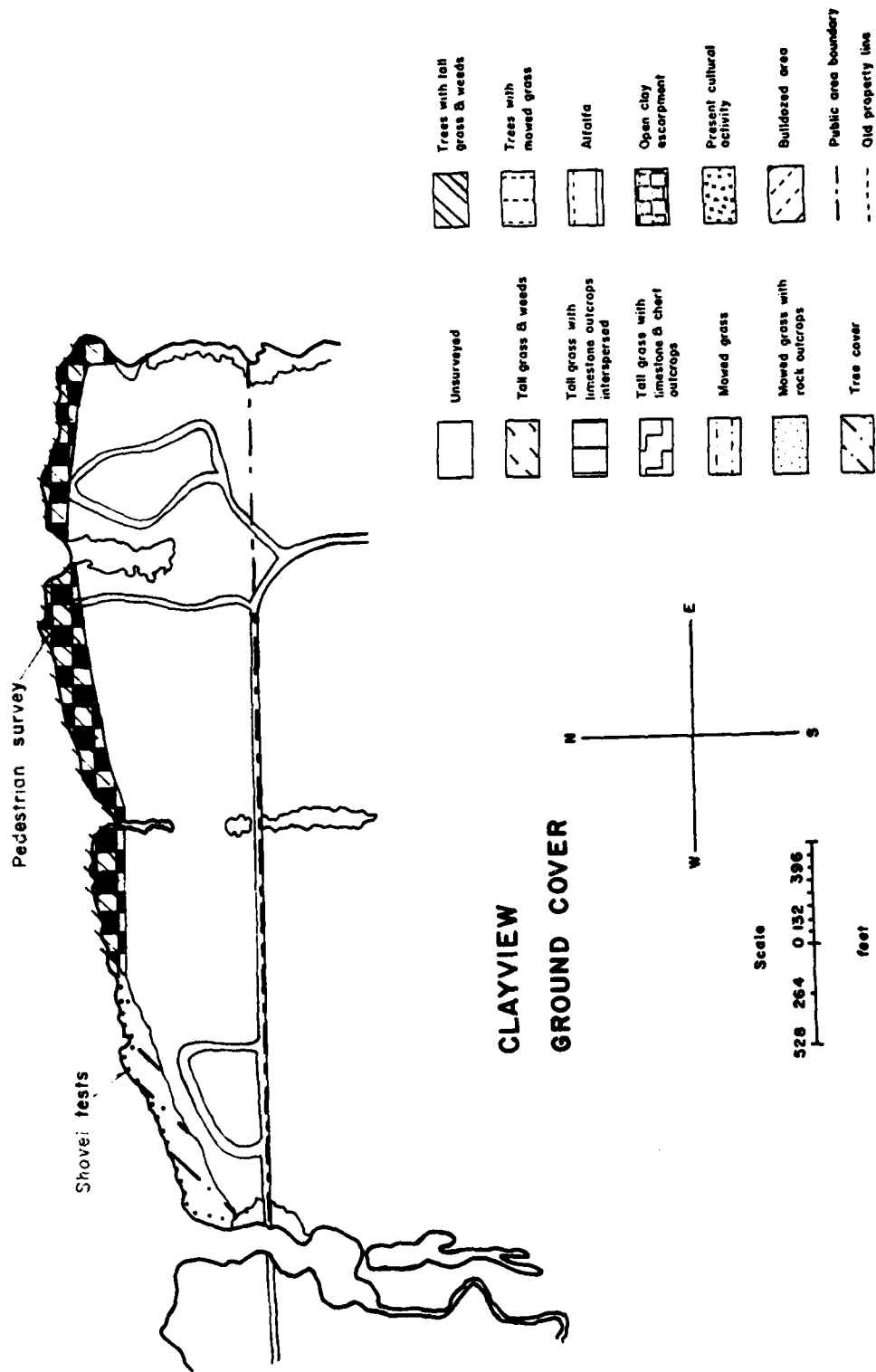


Fig. 16. School Creek Public Use Area: Visibility.



Schulzherd

Fig. 17. Clayview Public Use Area: Ground Cover.



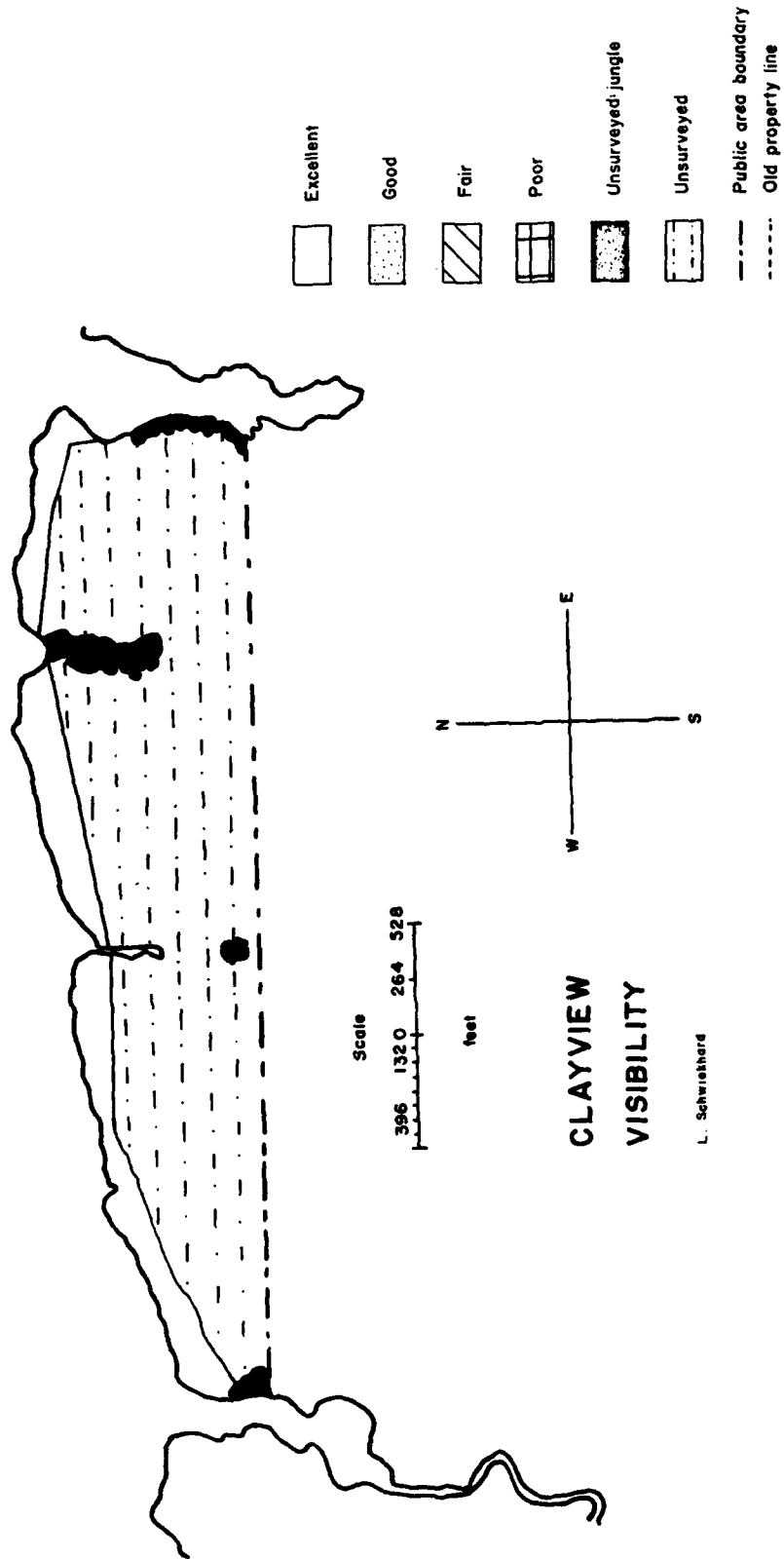


Fig. 18. Clayview Public Use Area: Visibility.

APPENDIX III

A Historic Site Survey

## INTRODUCTION

Since no new prehistoric archaeological sites were found during the sample survey in the Public Use Areas and as an examination of old aerial photographs indicated they have all been heavily impacted to create and maintain the use areas, it was decided to document the Euro-American historic sites within them. The following discussion of the history of the area and a brief listing of the sites is given. For an exact description, location, etc. of these sites see the official site survey forms filed at the Kansas State Historical Society in Topeka or the Kansas City District, U.S. Army Corps. of Engineers.

## HISTORICAL BACKGROUND

The counties involved in this particular study are essentially Clay and Geary.

The early history of the area begins with the generally hostile Pawnee-Kansa relationships resulting ultimately in the Pawnee being forced from the area (O'Brien 1978:14). The first Euro-Americans to enter what is now Clay County were probably the French who passed up the rivers to trade with the Indians (Blackmar 1912:362). The Bourgmont expedition reached Geary County when it traveled along the Kansas River. In 1825 one Jedediah Smith traveled up the valley. Later, David Atchison, a pioneer who went as far as Clay County, and John C. Fremont, on expedition to the Rockies, arrived at the mouth of the Smoky Hill on June 8, 1843 and crossed the southwest portion of Clay County.

Permanent settlement along the stream valleys began around 1852, but was slowed by a combination of the 1860 drought, the Civil War, and Indian trouble near the area. At least twice settlers apparently left their homes for better protection. First, in 1857, during the Pawnee-Delaware War, settlers took refuge at Fort Riley until assured that the fight was not near their homes. Second, in August 1864, during Indian raids made on settlers in Marshall and Washington Counties, Kansas, settlers from the Clay County area took refuge at the Huntress cabin. Here about 200 people camped for approximately one month. John W. Haynes, the only Clay County citizen to be killed by Indians during this period, was attacked along with five Washington County men while buffalo hunting near Lake Sibley in 1866. In spite of these difficulties,

settlement intensified following the Civil War. Until 1870 most settlements were focused along the streams as the settlers did not think the upland prairie would be opened to agriculture during their lifetime (Riley Co. Geneological Society 1976: 10-11, 75-76; Blackmar 1912: 362-363). This is a general overview of the Euro-American activity in the Clay and Geary County areas prior to the formation of the two counties.

#### CLAY COUNTY HISTORY

In 1855 the land within the present Clay County limits was attached, by the act of the first territorial legislature, to Riley County for tax and judicial purposes and soon after to Davis (Geary) County. In 1857 Clay County was named to honor Henry Clay but official organization did not occur until August 10, 1886, when a committee drafted a petition and affidavit, to formally organize the county, and sent it to the governor as required by law. The governor, then appointed Clay Center as the seat of justice, which was confirmed at the first election on November 6, 1866.

The first permanent settlers to the area began to arrive in 1856. John P. King and the Younkin brothers, Moses, William and Jeremiah, were among the first and took land in Timber Creek. In 1857 J. B. Quimby and William E. Payne settled land west of the Republican River near present Wakefield. Mrs. Quimby and Mrs. Moses Younkin were the first white women in the Clay County area. In 1857 John Gill, Lorenzo Gates and William Mall located on Deep Creek and Peter Dobbins at the mouth of Peter's Creek. Interestingly, Peter Dobbins lost his land due to legal restrictions on homesteading. His trip to Texas took longer

than the time interval allowed for homesteaders to be away from their property, this allowed his land to be reclaimed by William Silvers and George Glover. In spring 1858 James Simpson and family came from Iowa and settled near Gatesville.

As in any county there is a list of interesting firsts, a few of which are listed below.

1. White child born - December 2, 1858 - Edward L. Younkin to Mr. and Mrs. Moses Younkin.
2. Wedding - December 18, 1859 - Lorenzo Gates and Lucinda Gill.
3. Mail Route - established from Manhattan to Clifton in 1862 along the river valleys. Carrier - James Parkinson.
4. Post Office - in Mall Creek with Lorenzo Gates as postmaster.
5. School - first built in 1864 at Lincoln Creek on government land but never used - Interestingly, the land was claimed by Samuel Allen when the school was nearly completed, making it necessary to find another. A new school, purchased from F. Kuhnle, opened in 1865 with Mrs. Lock as the teacher.
6. Religious Congregation - In August, 1868 the Baptists organized a permanent congregation.
7. Newspaper - Clay County Independent - edited by E. P. Houston and J. M. Downer - first appeared on August 20, 1871 (Name later changed to Dispatch when sold to J. W. Miller).
8. Railroad - Junction City and Fort Kearney (now the Union Pacific) completed to Clay Center in March 1873.

Settlers first began to enter this area in 1853. Thomas Reynolds, mentioned previously, was one of these who located near Ogden. Colonel W. P. Montgomery, (president) and William Hammond, (secretary) organized the Pawnee Town Association on November 26, 1854.

The first election held in Geary County was in November, 1854, at the home of Thomas Reynolds to elect a delegate to Congress. The Free State Candidate, R. P. Flenneken won over the Pro-Slavery Candidate J. W. Whitfield.

In Geary County the first territorial legislature was held. Pawnee Township was named by the governor, and a building erected, at least partially, by the time of the first session, held July 2, 1855. However, due to the home locations of the first legislators and their Missouri interests the meeting was adjourned to Shawnee Mission in Johnson County. Although the governor vetoed the resolution he was overridden by the territorial court and Pawnee Township lost the capitol.

In 1855 the first territorial legislature created and named the land now falling within the boundaries of Geary County, Davis County, after Jefferson Davis. After two other attempts to change its name for various reasons, but mostly because Jefferson Davis had become President of the Confederacy, on February 28, 1889 the name was changed to Geary County in honor of John White Geary, third territorial governor of Kansas. The seat of justice was originally located at Ashland in 1859. In 1860 it was moved to Junction City.

Again, there is a list of firsts of which a few are listed below.

1. Post Office - in Fort Riley, 1853 - Robert Wilson, Postmaster.

2. Grocery Store - in Pawnee, 1854 - run by John T. Price.
3. White child born - John Fleming - born December 20, 1854.
4. Wedding - Thomas Jenkins and Ella Wicks - October 1, 1855.
5. Newspaper - The Sentinel - first appeared in June, 1858 - purchased in 1859 by Samuel Medaly and the name was changed to Kansas Statesman.
6. Stage Coach - formal opening August 4, 1862 - left Junction City to begin the Smoky Hill Route to Santa Fe.

#### FORT RILEY

Finally, it is important to understand the position of Fort Riley in the culture of the county and the surrounding area. The actual organization date is unclear but Fort Riley was organized sometime in either the spring or fall of 1852. Major E. A. Ogden, an 1855 victim of the cholera epidemic, was given the duty of selecting the site. The site was established near the junction of the Republican and the Smoky Hill Rivers at the suggestion of Col. T. T. Fauntleroy from Fort Leavenworth. The original name was Camp Center for its location lies nearly in the geographical center of the United States. This name was changed on May 17, 1853 to Fort Riley in honor of General Bennett C. Riley. In 1883 General P. H. Sheridan, General-in-Chief of the United States Army, recommended enlargement of the post. Action by the Congress on this matter did not begin until 1886.

The preceding is a brief outline of the history of the Milford Lake area following Euro-American intrusion. A more detailed history can be obtained in any of the books listed in the bibliography for this



section, or in two of William Connelley's books:

Standard History of Kansas, Lewis Publishing Co.; Chicago, New York, 1918.

Fifty Years in Kansas, Crane and Co.; Topeka, Kansas, 1902.

Additional information for this section was researched in the Riley County Geneological Society files and in Blackmar (1912).

## HISTORICAL ARCHAEOLOGICAL SITES

In the absence of actual archaeological field evidence, historical documents can be used to pinpoint the location of historic sites. In the case of this report two sets of maps and a set of aerial photos were used, and should be preserved as historical data on the Milford Lake project. These are the Real Estate, Milford Reservoir maps with the tract register of acquisition after January 1, 1943, segments 1-16, (made by the U.S. Army Corps of Engineers), and the Kansas River Basin Milford Reservoir, Republican River maps (scale 1 in. = 400 ft.) drawn from aerial photos of Milford Reservoir area (taken November 24 and December 1, 1957). They are composed of fifty sections and one index map. Those sections pertinent to this project are listed as follows: 2, 4, 5, 6, 7, 8, 9, 10, 11, 14, 18, 19, 20, 25, 26, 29, 30, plus the index. Finally, the sets of aerial photos taken for the U.S. Department of Agriculture Commodity Stabilization Service of Clay County, Kansas on July 12, 1957 are also of value, as well as those taken for the above area for the Agricultural Service of Geary County by Reed Development Corporation, Washington, D.C. on August 4, 1956. The pertinent photo numbers for Geary County are ZE-6R-138, ZE-6R-140, ZE-6R-142, ZE-6R-144, ZE-6R-174, ZE-6R-178, and ZE-6R-180.

If there were any historical structures in the Public Use Areas remaining after those buildings desired by their owners, or purchased by a third party were removed from the property, they have been removed by the Corps of Engineers. As a result of these actions there are few cultural remains to be found in the fields. However, often what turn out to be old driveways and roadways are detected as sunken features which at

times are lined with trees (an open space thru the trees). Concrete slabs also occur in the old site areas and are assumed to be connected with them. Below are listed the historical sites, which were located on the maps and photos referenced previously, and then visited in the field whenever possible. The names of the previous owners preceeded by an \* are those identified during research at the Geary County Courthouse and are those from whom the government purchased the land. The remaining names were located on the tract maps mentioned earlier (see Figure 20).

TIMBER CREEK:

14CY69. Probably farmstead of Anna B. Hartzell. A concrete slab and an old roadway was noted on the site. Formerly there were six structures, one of which appears to match the position of the concrete slab.

14CY70. Probable farmstead of Elton T. Setchall. It was unsurveyed because of dense tree cover. Formerly three structures stood there.

14CY71. Probable farmstead of Don H. Meyers, the only visible remains is a possible old roadway in the area like that seen on the old aerial photos. Formerly four structures stood there.

FARNUM CREEK:

14GE52. Farmstead of \*Earl K. and Berneice A. Chambers, et ux, but no visible remains are noted today. Formerly seven structures - one possibly a silo - stood there.

MILFORD PLEASANT VIEW:

14GE53. Farmstead of Frank B. Brown consisted of two concrete slabs. Formerly seven structures stood there.

14GE54. Farmstead of \*Henry Charles and Beulah Mildred Shad, this area is presently covered with alfalfa. Formerly three structures stood there.

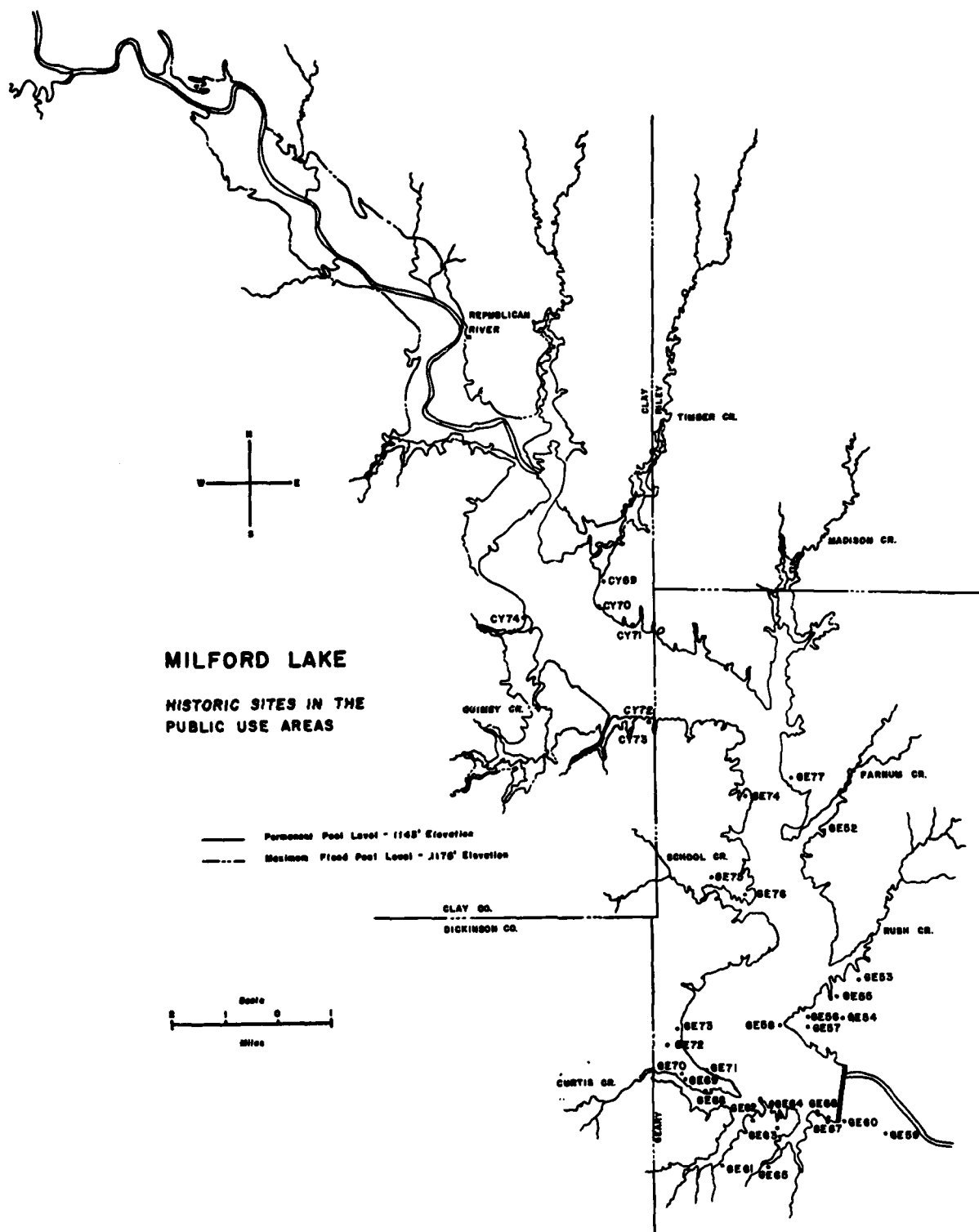


Fig. 20. Historic archaeological sites in Milford Lake Public Use Areas.

14GE55. Farmstead of \*Raymond C. and Josephine M. Fasse, whose roadway used in the area today is the old driveway area. Formerly eight structures stood there.

14GE56. Farmstead of \*Henry H. and Pansy V. Heath. It was unsurveyed because of dense underbrush. Formerly four structures stood there.

14GE57. Farmstead of \*William Ferguson. It was unsurveyed because of dense underbrush. Formerly nine structures stood there.

14GE58. Farmstead of \*Herbert Karmann, et. al., it formerly consisted of three structures.

#### OUTLET:

14GE59. A possible business, a Ranger stated a nursery was formerly located here. Katie Britt was the former owner and six structures were here.

14GE60. Farmstead of Julius Loeckle is today the location of present Dam Outlet Public Use Area which was completely transformed by power equipment. Formerly seven structures stood there.

#### ROLLING HILLS:

14GE61. Farmstead of \*Morris and Rose Gfeller that formerly consisted of nine structures (three apparently are silos).

14GE62. Farmstead of \*Norma Jean Manz who formerly had two structures on the site.

14GE63. Farmstead of Helen Dorothy Manz and William Luthi who formerly had eight structures at the site. Two structures are present today. They consist of handtooled, two-story barns preserved on the site by the Corps of Engineers for recreation shelters. The farm was in the Fredrick Manz family from 1882 until the Milford Dam was constructed. The barns were built by Fred Raetz, a local stone mason. The stone was quarried on the site. The barns would accomodate about twelve horses each.

14GE64. Farmstead of \*Robert Luthi, et. al., which has a large amount of broken crockery and glass present. Also present are large concrete blocks on the shoreline probably from the old farm site. Formerly ten structures stood there.

14GE65. Probable farmstead of \*Kearney W. and Norma Jean Manz, with an old windmill and corral in the area as well as what appears to be an old garden fence, (at least a garden had been planted in the area due to the presence of what appear to be wild domesticates). Formerly nine structures stood there.

14GE66. Farmstead of \*Ruth and Clifford Arthur is in an area now under water. Formerly six structures stood there.

14GE67. Farmstead of H. W. King is in an area now under water. Formerly six structures stood there.

CURTIS CREEK:

14GE68. A farmstead area that is presently covered by grass and access driveways. Formerly five structures stood there.

14GE69. Farmstead of Ervin L. Hanney et. al., consisting of a possible old roadway on the site. Formerly seven structures stood there.

14GE70. Farmstead of \*Charles Casper et. ux., only an old roadway is in the area today -- possibly a drive. Formerly 14 structures stood there.

14GE71. Farmstead of Edward H. Lutman, but there are no visible remains of the former eight structures that stood there.

14GE72. Possible farmsite of \*Arthur and Albert Baer with only an old roadway noted in the area today. Formerly two structures stood there.

14GE73. Farmstead of \*James and Leota D. Auld, but only an old roadway is noted in the area today. Formerly 13 structures stood there.

SCHOOL CREEK:

14GE74. \*Clifford J. Shandy et. al. and Sam Walker et. al., owned a farmstead here. The area was bulldozed but formerly two structures stood there.

14GE75. Farmstead of \*Claud L. and Wilma A. Pearson was here. In the field, a sunken lineal feature lined with apple trees was noted in the area of the site. This feature was not noted on either the maps or aerial photos. Formerly five structures stood there.

14GE76. Farmstead of Carl Schweitzer was here but the area is covered with grass and access driveways. Formerly ten structures stood there.

CLAY VIEW:

14CY72. Probable farmstead of Faye E. Maxwell but except for a possible old roadway in the area no further evidence is noted. Formerly five structures stood there.

14CY73. Farmstead of Allen E. Babb has only an old roadway in the area today. Formerly six structures stood there.

CLAY COUNTY PARK: (See Figure 21)

14CY74. This site consists of the older sections of the town of Wakefield which were leveled for the park and inundated by the lake.

The first actual settler(s) on the Wakefield site had no connection(s) with the town itself. Mr. James Gilbert built a log cabin on the bank of Chapman Creek just south of Market Square in 1858. He apparently was in the area for only two years, leaving in 1860. Other families lived

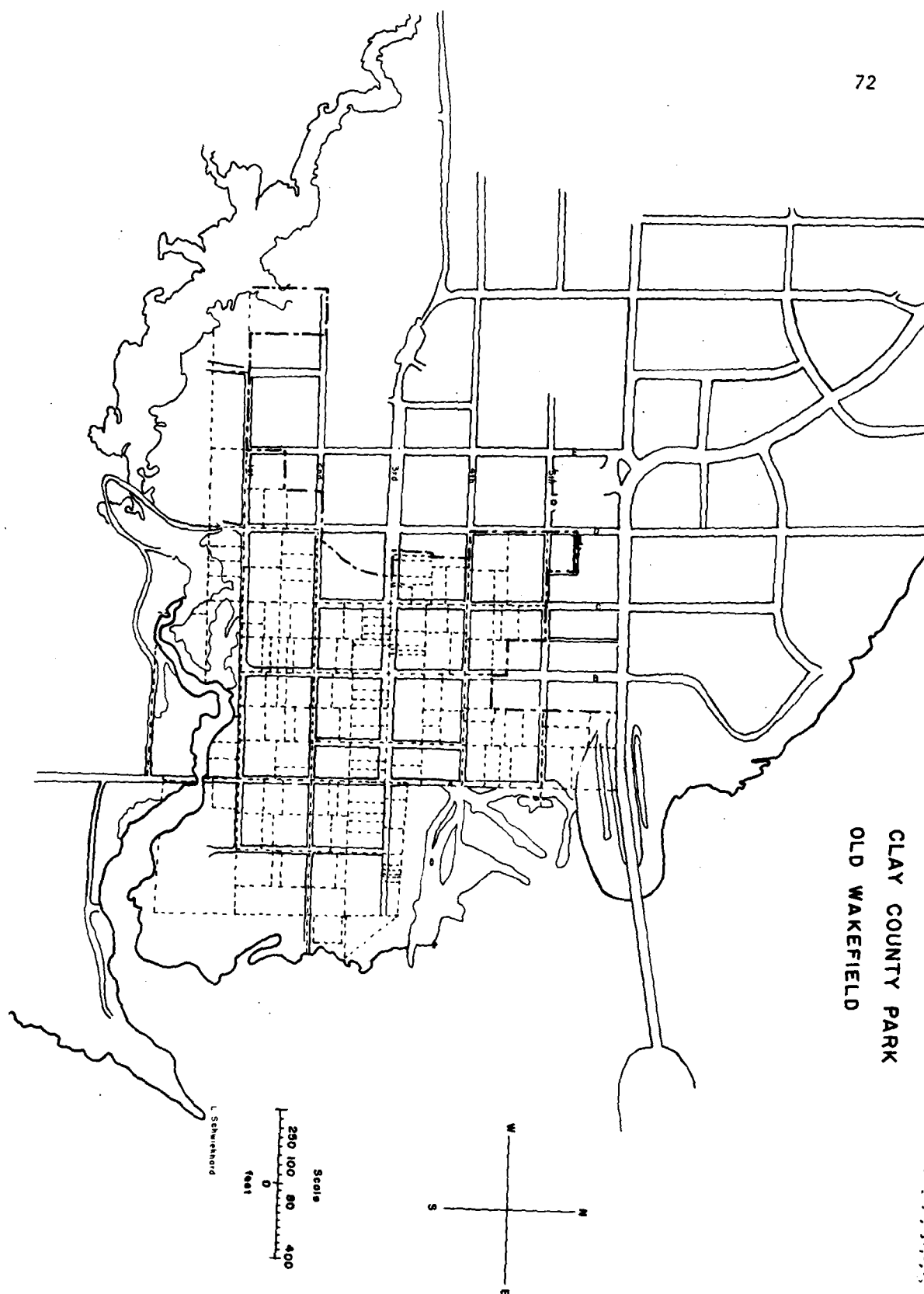


Fig. 21. Clay County Park: Old Wakefield.



in Gilbert's cabin before Wakefield as a town was started.

In June of 1869, Rev. Richard Wake was enlisted by John Wormald of Wakefield, Yorkshire, to find a suitable settlement site for a group with which he was to immigrate. In July of that same year Wake and Captain A.C. Pierce drove a team of horses up the Republican River to view the land, and selected a site near Cedar Bluff - the site upon which the remainder of old Wakefield and new Wakefield are now situated.

On August 21, 1869, John Wormald and Alexander Maitland plus a dozen others, arrived and purchased 32,000 acres between Chapman Creek and the Republican River from the Union Pacific Railroad and National Land Company for \$102,000. The group organized The Kansas Land and Emigration Company on August 25th and laid out the town site of 120 acres on August 26, 1869. The name Wakefield was chosen both to honor Rev. Wake, and to remind town members of Mr. Wormald's former home in England. In October, 1869, the first group of settlers, seventy-seven, arrived and they were followed by another group in the spring of 1870. The most rapid growth in this town's history appears to have occurred between 1875 and 1887 which corresponds to the general movement of immigrants into Kansas.

The company store, one of the first businesses in the area (located across from the present library) was finished in April of 1870. The store was on the first floor with a community meeting room on the second. It was here the Methodist Church, with Rev. Wake as minister, met until a church was finished in late 1870. School was held in the church until the first school house was completed in 1873. The Wakefield Ferry and Bridge Company, another early business, began operation on May 30, 1870, with

William Guy as ferryman at the Timber Creek Ford. Several other businesses came to the area near the town's founding. A list of some of these early businesses and their first owners follows:

Grocery Store - Benjamin Budden

Drug Store - Mr. Thomas

Butcher Shop - Alsap and James

General Merchandise - Wormald

Hardware - Preston Gates

The Pioneer Hotel, started in 1870, was the first in Clay County. Due to unfavorable economic conditions following the Civil War and the drought of 1870, all of these businesses including The Kansas Land and Emigration Company, went out of business. A branch of the Union Pacific was built in the area of 1872, with Mr. Charles Wake as Wakefield's first stationmaster. The Bank of Wakefield was established in 1886 and continues to the present. (Blackmar, 1912; Phelps, 1972).

MILFORD CITY PARK: (See Figure 22)

14GE77. This site consists of the older sections of the town of Milford which were leveled for the park and inundated by the lake.

The town of Milford began like many of the small rural communities in this area, with settlers entering the area, and eventually for the sake of convenience a town was started as a pivot for the rural community. In the spring of 1855 a group of 17 men known as the Barry-Gordon party reached an area later to become the town of Pawnee and split into several groups. One of these groups, a party of three men, Abraham Perry, a lawyer and hotelkeeper from Pennsylvania, his fourteen year old nephew, Marshall

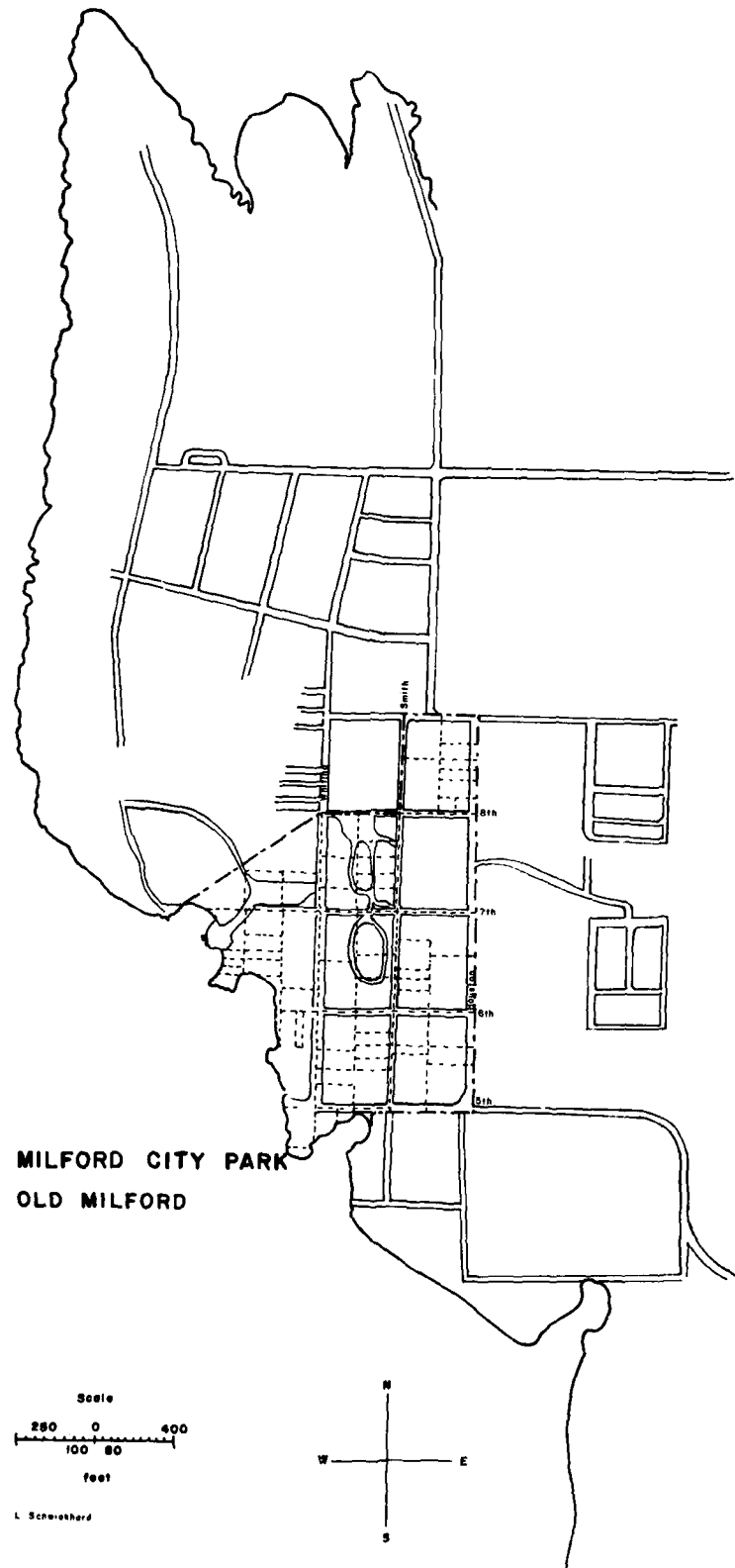


Fig. 22. Milford City Park: Old Milford.

Barry, and George Taylor traveled to the present site of Milford and settled. In 1857 more settlers came to this area until there were a total of fifty people (men, women and children) within a twenty mile radius of Milford.

By 1857 plans for a town were well underway and in 1858, the town, originally named Bacheller, was officially incorporated by an Act of the Territorial Legislature. Town officials named were Abraham Barry, Bradley E. Fullerton, Samuel D. Houston, Moses Younkin and Frank Smith. The records show that in 1859, 298 acres were purchased by the Bacheller Town Company from Abraham and Elizabeth Barry for \$1000.00. The names on the original deeds are as follows: A. B. Whiting, B. E. Fullington, Chas. Clark, George French, S. D. Houston, Emigration Aid Society, E. V. Barry, Moses Younkin, William Endicott Jr., Mrs. Mary Ellen Barry, T. Houston, Kate A. Whiting, J. C. Kennetts and Louisia C. Fullington.

The town was set up on a north-south/east-west axis. The north-south streets, starting from the west, were named River, Barry, Whiting, Smith, and Houston. The east-west streets, starting from the south, were numbered three thru nine.

An interesting story surrounds the changing of the town's initial name, Bacheller. In 1868, at the request of the postmaster, who was annoyed by the incorrect spellings of the town's name on incoming mail, a new name was chosen. The name selected (Milford) combined the town's two vital business sources. The Union and Sreeter Mills located in the area, gave the first half of the name. The Union Mill, (1863-1880), was a lumber mill set on Madison Creek. The Streeter Mill, (1883-1942) located a short distance from

Milford, was a grinding mill for three grades of flour, cornmeal, cereals, and feed. The second half of the town's name came from the public ferry or ford across the Republican River authorized by the legislature in 1859 to be operated by Abraham Barry.

The organization of a church and a school was another important community matter as it was for most new rural settlements of this time. In 1858 Rev. William Todd began the Missionary Church work for the area. However, it was not until April 19, 1868 that an organizational meeting for the Congregational Church of Milford was held. The first school was in a log cabin with A. B. Whiting as the instructor. (Woman's Missionary Society, 1855-1961; Blackmar, 1912).

## I. Vitae of Laura (Lauri) S. Schwiekhard

II.

PII Redacted

III.

IV.

## V. Education:

- |  |           |
|--|-----------|
| A. Parkston High School<br>Parkston, South Dakota        | 1961-1964 |
| B. Boone Valley High School<br>Renwick, Iowa             | 1964-1965 |
| C. School of Practical Nursing<br>Mitchell, South Dakota | 1965-1966 |
| D. Sioux Falls College<br>Sioux Falls, South Dakota      | 1967      |
| E. Kansas State University<br>Manhattan, Kansas          | 1977-1980 |

## VI. Non-Academic Employment

- |   |             |
|---|-------------|
| A. Sioux Valley Hospital<br>Licensed Practical Nurse<br>Sioux Falls, South Dakota | 1966-1969   |
| B. St. Joseph's Hospital<br>Licensed Practical Nurse<br>Ft. Dodge, Iowa           | Summer 1967 |
| C. Asbury Hospital<br>Licensed Practical Nurse<br>Salina, Kansas                  | 1971-1976   |
| D. Memorial Hospital<br>Licensed Practical Nurse<br>Manhattan, Kansas             | Summer 1978 |

## VII. Research Positions:

- A. Kansas State University Spring, 1980  
Laboratory Assistant to Dr. Patricia J. O'Brien  
in Kansas State University Archaeology Laboratory

## VIII. Honoraries:

- A. Phi Kappa Phi 1978  
B. Phi Beta Kappa 1979

## IX. Field Experience:

- A. Kansas State University Fall, 1977  
Archaeological Field Methods  
Excavations at the Ashland Bottoms Site, A  
historic corn crib and Kansas City Hopewell midden.
- B. Kansas State University Spring, 1979  
Archaeological Site Surveyor  
Fall River Reservoir (9 days)
- C. Kansas State University Summer, 1979  
Crew chief and author, A Survey of  
Milford Lake's Public Use Areas (6 months)
- D. Kansas State University Fall, 1979  
Archaeological Field Methods  
Excavated at the Eggars Site, A "Valley  
Focus" Woodland midden.
- E. Kansas State University Fall, 1979  
Survey conducted of a tract of land  
along the Smokey Hill River for a sewage  
treatment facility for Ellsworth, Kansas (2 days)
- F. Kansas State University Spring, 1980  
Archaeological Surveyor  
Land surveyed in Western Kansas from Mingo  
Substation near Goodland north to the Nebraska  
state line for Sunflower Electric Cooperative (2 days)

## X. Publications

- A. An Archaeological Surface Survey of Proposed Sewage Treatment Facility, (Manuscript filed with the State Historical Preservation Officer in Topeka), September, 1979.
- B. Sample Archaeological Survey of Milford Lake Public Use Areas, Kansas, Report submitted to the U.S. Army Corps. of Engineers, Kansas City District, 1980.

- I. Vita of Patricia J. O'Brien
- II. Address: Department of Sociology, Anthropology and Social Work  
239 Waters Hall  
Kansas State University  
Manhattan, KS 66506  
(913) 532-6872

PII Redacted

III.

IV.

V. Education:

- |   |                                    |
|---|------------------------------------|
| A. Nicholas Senn High School<br>Chicago, Illinois | 1949-1953                          |
| B. Wright Junior College<br>Chicago, Illinois     | 1954-1960<br>Associate of Arts     |
| C. University of Illinois<br>Urbana, Illinois     | 1960-1962<br>Bachelor of Arts      |
| D. University of Illinois<br>Urbana, Illinois     | 1962-1969<br>Ph.D. in Anthropology |

VI. Non-academic Employment:

- |   |           |
|---|-----------|
| A. Illinois Bell Telephone Company<br>Plant Engineering Clerk<br>Evanston, Illinois | 1953-1960 |
|---|-----------|

VII. Teaching Experience:

- |   |  |
|---|--|
| A. University of Illinois<br>Graduate Teaching Assistant                              | 1963-1966                              |
| B. Florida Atlantic University<br>Interim Instructor                                  | 1966-1967                              |
| C. Kansas State University<br>Assistant Professor<br>Associate Professor<br>Professor | 1967-1972<br>1972-1978<br>1978-present |



## VIII. Research Positions:

- A. University of Illinois 1962-1963  
Research Assistant to Charles J. Bareis  
on the Cahokia Project
- B. University of Illinois 1963-1964  
Research Assistant to Dr. Elaine A. Bluhm on  
the Rock River and John Deer projects
- C. University of Illinois Summer, 1965  
Research Assistant to Dr. John C. McGregor  
on a syllabus of Introductory Physical  
Anthropology and Archaeology

## IX. Professional Organizations:

The Society for American Archaeology  
The American Anthropological Association, Fellow  
The Society of Sigma XI  
American Association for the Advancement of Science  
Current Anthropology, Associate  
Arkansas Archaeological Society  
Iowa Archaeological Society  
Kansas Archaeological Society  
Kansas Academy of Science  
Missouri Archaeological Society  
Texas Archaeological Society  
Wisconsin Archaeological Society  
New Zealand Archaeological Association

## X. Research Interests:

Artifact classification and analysis (especially ceramics); Middle  
Mississippian, Middle Woodland and Central Plains archaeology; the  
engineering and building technology of the Maya; the origin and  
spread of domesticated plants; and cultural classification (Steward's  
culture types) especially with reference to archaeological materials.

## XI. Courses Taught:

Introduction to Archaeology  
Introduction to Physical Anthropology  
Archaeology of North America  
Archaeology of Mexico and Guatemala  
Archaeology of the Old World  
Archaeological Field Methods  
Indians of North America  
Indians of South America  
Kansas Archaeology

## XII. Field Work in Archaeology:

- A. University of Illinois Summer, 1964  
Field Foreman for Dr. Elaine A. Bluhm  
University of Illinois Archaeological Field School
- B. University of Kansas Summer, 1968  
Co-director of Great Plains Archaeological  
Field School jointly sponsored by KU, KSU and  
Wichita State with support from NSF. Excavated  
Taylor Mound (14DP3).
- C. Kansas State University Summer, 1969  
Co-director of Great Plains Archaeological  
Field School sponsored by KU and KSU. Excavated  
Steed-Kisker (23PL13) and Young (23PL4) sites.
- D. Kansas State University Fall, 1969  
Completed excavations at the Griffing (14RY401)  
site, A Smoky Hill earthlodge near Manhattan, KS
- E. Kansas State University Summer, 1970  
Co-director of Midwestern Archaeological Field  
School sponsored by KU, KSU, and University of  
Missouri. Excavated sites 23SA115, 23SA162,  
and 23SA162W.
- F. Kansas State University Fall, 1970  
Excavated the Don Wells (14RY404) site near  
Manhattan, KS and tested the Elliott (14GE303)  
site south of town.
- G. Kansas State University Summer, 1971  
Co-director of Kansas Archaeological Field  
School sponsored by KU and KSU. Excavated the  
Young (23PL4), White (23PL80), Coons (23PL16) sites  
and the Cochran Mound (23PL86).
- H. Kansas State University Fall, 1971  
Excavated further at the Elliott (14GE303) site  
and also excavated at the Coffey (14P01) site,  
around Manhattan.
- I. Kansas State University Summer, 1972  
Director of Kansas Archaeological Field School  
sponsored by KU and KSU. Excavated the Young  
(23PL4) site.
- J. Kansas State University Summer, 1973  
Co-director of Kansas Archaeological Field  
School sponsored by KU and KSU. Excavated the  
Cogan Mounds (23PL125).

## XII. Field Work in Archaeology (Cont'd.)

- K. Kansas State University Fall, 1973  
Excavated the Witt (14GE600) site, a Smoky Hill  
earthlodge near Junction City. Spring, 1974
- L. Kansas State University Summer, 1974  
Director of Kansas Archaeological Field School  
sponsored by KU and KSU. Excavated the Nuttle  
(14BU14) and Holderman (14BU19) sites near  
El Dorado.
- M. Kansas State University Summer, 1975  
Co-director of Kansas Archaeological Field School  
sponsored by KU and KSU. Excavated the 4 sites  
in Smithville Lake and directed a site survey of  
its Camp Branch area.
- N. Kansas State University Fall, 1975  
Excavated the Ashland Bottoms site (14RY603), a  
Late Kansas City Hopewell and a historic corn  
crib site south of Manhattan.
- O. Kansas State University Summer, 1976  
Director of Kansas Archaeological Field School  
sponsored by KU and KSU. Excavated 3 sites in  
Smithville Lake and completed the site survey of  
the lake area.
- P. Kansas State University Fall, 1977  
Completed excavations in the Ashland Bottoms  
Site (14RY603); Tested the Eggers site (14RY609).
- Q. Kansas State University Spring, 1979  
Excavated the Witt Mound (14GE607) near Junction  
City.

## XIII. Professional Recognition:

Plains editor for Current Research in American Antiquity (Society for American Archaeology). 1971-1976

## XIV. Grants and Fellowships:

- A. Platte River Valley Archaeological Survey. Bureau of General Research, Kansas State University. 1969-1970: \$1200.
- B. Summer Fellowship. Bureau of General Research, Kansas State University. 1970.
- C. Platte River Valley Archaeological Survey. Bureau of General Research, Kansas State University. 1970-1971: \$950.

## XIV. Grants and Fellowships (Cont'd.)

- D. Platte River Valley Archaeological Survey. Bureau of General Research, Kansas State University. 1971-1972: \$1,000.
- E. Platte River Valley Archaeological Survey. Bureau of General Research, Kansas State University. 1972-1973: \$700.
- F. Kansas Archaeology. Bureau of General Research, Kansas State University. 1973-1974: \$700.
- G. Kansas Archaeology. Bureau of General Research, Kansas State University. 1974-1975: \$400.
- H. Cahokia Archaeology. Bureau of General Research, Kansas State University. 1975-1976: \$1500.
- I. Cahokia Archaeology. Bureau of General Research, Kansas State University. 1977-1978: \$1500.
- J. Kansas Archaeology. Bureau of General Research, Kansas State University. 1978-1979: \$300.
- K. Kansas Archaeology. Bureau of General Research, Kansas State University. 1979-1980. \$900.

## XV. Contracts:

- A. Smithville Lake, 1975-1976. U.S. Army Corps. of Engineers, \$19,000.
- B. Milford Lake Shoreline Survey, 1975-1976. National Park Service, \$5,000.
- C. Smithville Lake, 1976-1977. U.S. Army Corps. of Engineers, \$101,000.
- D. Wilson-Milford Lake Cultural Resource Management Plans, 1977-1978. U.S. Army Corps. of Engineers, \$6,200.
- E. Milford Lake: 14GE41 Test Excavations. 1977-1978. U.S. Army Corps of Engineers, \$7,000.
- F. Preliminary Archeological Literature Search. Western Portion Kansas River and Tributaries Bank Stabilization Study Kansas. 1977-1978. U.S. Army Corps of Engineers, \$7,000.
- G. Fall River Cultural Resource Survey, 1979. U.S. Army Corps of Engineers, \$28,000.
- H. Milford Lake Public Areas Survey, 1979-1980. U.S. Army Corps of Engineers, \$6,000.
- I. Council Grove Cultural Resource Survey, 1980. U.S. Army Corps of Engineers, \$15,000.

## XVI. Publications:

"Two Late Woodland Sites in Lake County, Illinois." Transactions of the Illinois Academy of Science, Vol. 57, No. 2, pp. 109-115, 1964.

"Doctrinaire Diffusionism and Acts of Faith." American Antiquity, Vol. 33, no. 3, pp. 386-388, 1968.

"A Mastadon (?) Tusk from Manhattan, Kansas." Transactions of the Kansas Academy of Science, Vol. 71, no. 1, pp. 90-91, 1968.

"Chronological Position of the Cambered Jar at Cahokia and Its Implications." American Antiquity, Vol. 34, no. 4, pp. 411-416, 1969.

"Some Ceramic Periods and Their Implications at Cahokia." In Explorations into Cahokia Archaeology, edited by Melvin L. Fowler. Bulletin 7, Illinois Archaeological Survey, Urbana. 1969.

"Valley Focus Mortuary Practices." Plains Anthropologist, Vol. 16, no. 53, pp. 165-182, 1971.

"The Don Wells Site (14RY404), A Hopewellian Site Near Manhattan and Its Implications." Kansas Anthropological Association, Newsletter, Vol. 17, no. 5, pp. 1-11. Topeka, 1972.

"A Clovis Point from the Waterville, Kansas Area." Plains Anthropologist, Vol. 17, no. 55, pp. 60-64, 1972.

"The Sweet Potato: Its Origin and Dispersal." American Anthropologist, Vol. 74, no. 3, pp. 342-365, 1972.

"Urbanism, Cahokia and Middle Mississippian." Archaeology, Vol. 25, no. 3, pp. 188-197, 1972.

A Formal Analysis of Cahokia Ceramics from the Powell Tract. Monograph no. 3, Illinois Archaeological Survey. Urbana, 1972.

with Kevin Hart. "The Utlaut Site (23SA162W): An Oneota-Historic Missouri Burial Site." Missouri Archaeologist. Vol. 34, nos. 1-2, 48-66, 1972.

with Clark S. Larsen. "The Cochran Mound, 23PL86, Platte County, Missouri." Missouri Archaeological Society, Newsletter, No. 267, pp. 1-5, 1973.

with Clark S. Larsen, John O'Grady, Brian O'Neill and Ann S. Stirland. "The Elliott Site (14GE303), A Preliminary Report." Plains Anthropologist, Vol. 18, no. 59, pp. 54-72, 1973.

with Pamela Hixon, Beryl Miller, Don Rowilson, Paul Tribble, David Vitt and J. Pat Young, "A Most Preliminary Report of the Coffey Site, 14PO1: A Plains Archaic Site in Pottawatomie County." Kansas Anthropological Association, Newsletter, Vol. 18, no. 5, pp. 1-38, 1973.

## XVI. Publications (Cont'd.)

Archaeological Excavation Smithville Lake Project. Report submitted to the U.S. Army Corps of Engineers, Kansas City District. 1975.

Milford Lake Shoreline Archaeological Survey. Report submitted to the National Park Service, Midwest Archaeological Center. 1976.

Archaeological Survey Smithville Lake Project. Report submitted to the U.S. Army Corps. of Engineers, Kansas City District. 1976.

Cultural Resources Survey of Smithville Lake, Missouri, Volume 1: Archaeology. Report submitted to the U.S. Army Corps. of Engineers, Kansas City District, 1977.

"Steed-Kisker: A Western Mississippian Settlement System." In Mississippian Settlement Patterns, edited by Bruce D. Smith, pp. 1-19, Academic Press, 1978.

"Steed-Kisker and Mississippian Influences on the Central Plains" in George Metcalf Festschrift on Central Plains Archaeology, edited by Donald Blakeslee, pp. 67-80, Office of Iowa State Archaeologist, Report No. 11, 1978.

Milford Lake, A Cultural Resources Management Plan. U.S. Army Corps of Engineers, Kansas City District. 1978.

"A Mastodon from Stanton County, Kansas." Transactions of the Kansas Academy of Science, Vol. 81, No. 4, pp. 371-373, 1978.

with Margaret Caldwell, John Jilka, Lynn Toburen and Barbara Yeo. "The Ashland Bottoms Site (14RY603): A Kansas City Hopewell Site in North-Central Kansas." Plains Anthropologist, Vol. 24, no. 83, pp. 1-20, 1979.

Preliminary Archaeological Literature Search: Western Portion Kansas River and Tributaries Bank Stabilization Study Kansas. U.S. Army Corps of Engineers, Kansas City District. 1979.

IN PRESS

"A Preliminary Review of Steed-Kisker Culture." Wichita State University, Bulletin.

with Elaine Bluhm Herold. "The Huber Site (CK-1), Cook County, Illinois." in Bulletin of the Illinois Archaeological Survey, Urbana.

with Elaine Bluhm Herold. "The Hoxie Farm Site (CK-4), Cook County, Illinois." in Bulletin of the Illinois Archaeological Survey, Urbana.